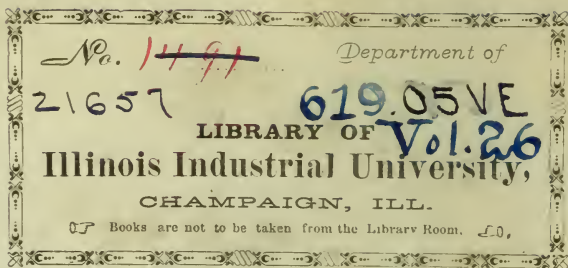


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THE  
VETERINARIAN;

OR

MONTHLY JOURNAL OF VETERINARY SCIENCE,  
FOR 1853.

VOL. XXVI—VOL. VI, THIRD SERIES.

EDITED BY

MR. PERCIVALL.

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*Ars Veterinaria post medicinam secunda est.—Vegetius.*

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THE  
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No. 61.

FRACTURE OF THE PELVIS.

By J. RAINSFORD, V.S. 4th Dragoon Guards.

*June 6th*, 1852.—A, 43, chestnut mare, admitted with a severe contusion of the off hind quarter, occasioned by a fall, on the line of march from Limerick to Dublin, which created great difficulty in bringing her on the last four days. There was considerable swelling of the quarter, and the mare was excessively lame, unable to move without very great exertion. She had been bled and physicked by order of Mr. Percivall, V.S. of the Artillery, previous to my seeing her. Fomentation to the quarter was followed by some trifling relief. From the drooping and sinking of the quarter, and from the excessive lameness, I was of opinion fracture of the pelvis had taken place, although there was no perceptible crepitus.

*July 1st*.—I applied a blister over the hip-joint, which took good effect.

*28th*.—The mare still continues very lame, and the muscles of the quarter have lost much of their plumpness and rotundity.

*August 1st*.—There appearing no hopes of the mare's recovery, she having become much worse during the last few days, and now being unable to raise herself upon her legs when down, and all doubt being removed about the presence of fracture, I recommended that she should be destroyed.

On *post-mortem* examination I found the ischium, close to the acetabulum, fractured; the fracture extending into the cavity of the joint, which was in a high state of inflammation, accompanied with extravasation of blood, effusion of lymph, &c., into the surrounding parts.

Portobello Barracks;  
*Nov. 5th*, 1852.

## FRACTURE OF THE SECOND CERVICAL VERTEBRA.

By GEO. WATERS, M.R.V.S.

*To the Editor of 'The Veterinarian.'*

DEAR SIR,—I was summoned in haste by a farmer on the estate of Sir St. Vincent Cotton, a short time since, at seven o'clock in the evening, to attend upon a valuable two-year-old cart colt, which was supposed to have dislocated his lower jaw by hanging back whilst being tied to the manger with a hempen halter. He was seen by the owner to fall back upon his haunches, but immediately recovered himself, and on getting up was observed to carry his head on one side. He was now turned loose into the straw-yard, a short distance from the stable, where he remained standing in one position until I saw him, about an hour after the accident.

I found, on examination, that there was no injury or dislocation of the jaw, as was supposed by the owner; but, seeing his head and neck curved on one side, and the neighbourhood of the upper cervical vertebræ somewhat swollen, I supposed this locality to be the seat of injury. The animal did not seem much disturbed, nor did he appear at all unconscious of surrounding objects; on the contrary, he ate some clover that was offered; though, on our attempting to move him, on applying pressure with the hands to the part of the neck that was swollen, he immediately fell over as if he had been shot. While down I found it necessary, for our safety, to secure his legs, as he struggled very powerfully, although he was unable to rise, for the purpose of making a further examination of the neck, with the view of ascertaining, if possible, whether any of the vertebræ were fractured; but no crepitus could be felt. I, however, was quite convinced, after what I had just seen, that the spinal marrow was injured near the head, produced, I had very little reason to doubt, by a fracture of one of the vertebræ; which opinion was communicated to the owner, with the addition that there was no chance of his recovery; he, however, lived till ten o'clock the following morning, about sixteen hours from the occurrence of the accident.

I made a *post-mortem* examination within an hour after his death. On cutting through the skin and muscles of the neck down upon the first and second cervical vertebræ, a quantity of extravasated blood was found, and on proceeding further with my dissections, towards the inferior part of the vertebra dentata, I found the body of that bone broken completely in two, at the base of the odontoid process.

There was scarcely any palpable displacement of the parts; nor did the spinal marrow appear, on the closest investigation, to be lacerated, but was very much congested opposite to the fractured portions of bone; which congestion, indeed, could be traced along the canal to the brain. A small quantity of dark-coloured serum escaped from the foramen-magnum. I regret that time did not permit me to continue the investigation so far as the brain was concerned; but the examination of the spinal cord was as satisfactory as circumstances would allow.

I consider this case interesting in one or two particulars. First, from the unusual length of time the animal survived after fracture of a vertebra in a locality which, so far as my experience goes, is unparalleled, since a fracture corresponding to the respiratory tract of Bell is well known to produce instantaneous death in any vertebrate animal. The next interesting point was the small amount of blood poured out into the spinal canal itself; though, taking into consideration the quantity effused into the contiguous parts, there can be no doubt that one or both of the vertebral arteries were ruptured, although I failed in discovering any such injury. Lastly, on removing the medulla oblongata from the foramen-magnum, the small quantity of discoloured serum which escaped, coupled with the congestion, evidently indicated the presence of cerebral inflammation, consequent upon the injury, which most probably was communicated along the membranes of the cord, and which cerebral inflammation, in my opinion, was the immediate cause of death.

I remain, yours, &c.

Nov. 17th, 1852.

## SACCULOUS DILATATION OF THE ŒSOPHAGUS.

BY JOHN TEKYL, M.R.C.V.S.

*To the Editor of 'The Veterinarian.'*

SIR,—The following case is to me interesting and unique. If it should be considered by you of sufficient interest to be worth a page in your excellent periodical, you will oblige by placing it there.

Sir, yours, &c.

Nov. 9th, 1852.

On the 28th day of February, 1848, I was called to Firsby to attend a five-year-old bay gelding, the property of



J. Hood, Esq., of Uleham Hill, near Lincoln. I found the horse rather low in condition, though in apparent good health and spirits, but having an enlargement situated on the course of the trachea, about midway betwixt the breast and angle of the jaw, inclining considerably to the left side. It was about this substance my opinion was sought. I in the first place asked them to furnish me with a history of the case, which they did; and this I will relate in the order in which it was given.

About two years previous to this time, the horse was making up for Lincoln's April fair. One morning he refused his food, and a swelling was observed upon his throat, which was very hot and tender to the touch. Inquiries being made of the groom, he replied, "yesterday, when out at exercise, the brute ran away with me, and galloped with all his force until he came into violent collision with a post and rail fence, his neck hitting the upper end of the post with more force than any other part." I inquired if the skin or hair was injured. They replied in the negative. The horse was placed under what they deemed the best mode of treatment, but recovered very slowly, and lost so much of his condition that he was not saleable at that fair. During his recovery he occasionally coughed up blood and matter. He was, early in May, turned out for the summer, but did not regain his condition. Three months after, a small swelling was again perceptible in the same situation which is now occupied by a substance still larger. Blisters and setons for this were employed at various times, but without success. The substance gradually increased until it reached its present size.

The position of this enlargement I have already pointed out. I will now attempt to describe its form, and the peculiar and characteristic symptoms as they were observed by me on the day on which I first saw the animal. Its form at the base was a very irregular circle, having its longer axis parallel with the trachea, and measuring about eight inches: its shorter diameter across the trachea being about six inches. Its greatest elevation was about three inches, and was of an irregular pyramidal shape. It did not feel hard, and was uniform in its consistence. There was no fluctuation. It felt similar to any thick muscular part in a state of moderate relaxation.

The history of the case, together with the present symptoms, led me to think it must be some affection of a very serious nature. Its long standing, its position, (being chiefly on the near side,) the coughing up of blood and matter, the low condition of the animal, the gradual increase in the size

of the tumour, its not yielding to any of the forms of treatment which had been adopted, all led me to the conclusion that this tumour was of morbid growth, and one of rare kind. I now began to feel more interest in the case, and being desirous of learning, as far as possible, whether this enlargement interfered with the process of deglutition or not, I offered the animal some water, of which he drank. Every time the horse swallowed there was a peculiar spasmodic action of the muscles of the neck, which led me to conclude that the diseased condition of the parts must be connected, in some way or other, with the œsophagus. Solid food gave the same indications, but in a more marked degree. Every muscle which could assist in forcing the food down the œsophageal canal was brought into active use. This was so plain and clear that all the men had noticed it, and said at once, "the horse always seems as though he was a *little bit choked* when he swallows." The muscular actions were very peculiar, and worthy of especial attention. They had precisely the action of the œsophagus in kind, but were more energetic and sudden, appearing more like spasmodic action of the contractile tissues, commencing just below the angle of the lower jaw, and extending downwards until they gradually became lost near the breast. These actions appeared to be as regular and as involuntary as those of the proper contractile texture of the œsophagus. Into the most prominent part of this morbid growth I inserted an exploring needle, to which, after carefully withdrawing, I found a very small portion of very fine fibrous vegetable matter attached within its groove. From a careful consideration of the above symptoms, but more particularly of the last, I thought I was justified in forming the following opinion:—that it was a case of *dilatation of the œsophagus*, and this (of course) preceded by contraction of a part of the canal immediately below.

I stated my opinion of the nature of the case to the owner, and the impossibility of cure by any medicine or external application. The proprietor, however, was anxious something should be done. I therefore recommended an operation as the only chance, to which he readily consented. His medical adviser, J. Howit, Esq., of Lincoln, expressed an interest in the case, and kindly assisted me in the operation. The horse was removed to my stables; a day was fixed; and the animal, after being prepared in the usual way, was cast and firmly secured.

I commenced the operation by making a bold incision through the skin in a line with the trachea, over its most

prominent part, commencing it a little above and carrying it down a little below the affected part. I next cut through the muscular textures. Separating the edges of this long wound exposed to view a large irregularly-shaped body, pale in colour and soft. I then traced either termination of this body, and found it continuous both above and below, with a substance which we readily recognised as the œsophagus. Proceeding with the operation, I cut through the thin parietes of this œsophageal dilatation from its upper to its lower extreme limits. Next I emptied the sac, and gathered from it about one quart of solid finely-masticated vegetable matter. We carefully examined the sac, and found just at its inferior extremity a contraction, which I divided. Continuing our exploration of the internal surface of this cavity, we found the mucous membrane thin, with many cicatrisations, doubtless the result of former injuries. Afterwards, I removed two portions of the sac, about three inches long and two wide, in the centre. On examining the exterior of this dilatation, we found only traces of pale muscular fibre remaining to represent the well-defined muscular tissue of a healthy œsophagus. We found the muscular textures likewise all around this part very much wasted: doubtless owing to the continued pressure, as well probably to the new kind of action they had taken on. In order to ascertain, as far as possible, whether there were any more diseased parts along the course of the tube, I passed through the wound a probang down the œsophagus into the stomach. It passed freely; but as soon as it had (judging by the length which had disappeared) fairly entered the stomach, it excited violent efforts to vomit; and a considerable quantity of liquid passed up through the hollow probang, but none betwixt the probang and the coats of the œsophagus. I thought, with Mr. Howit, that the wound was better without sutures, since the animal must for a time be fed through the wound. Having now concluded our operation, I had the hobbles taken off, and allowed the animal to rise, and then removed him to a comfortable box.

I fed him twice a day during nineteen days with the stomach pump, through the wound, with fine bran oatmeal and warm water, which he appeared to enjoy, as he kept his jaws in almost continual motion during the whole feeding time. He lost very little flesh on this mixture of food. Once a day I allowed him a pail of warm water, which he always drank; and, by holding the sides of the wound firmly together, he was enabled to pass a small quantity of the water on to the stomach, though the greater part escaped by



the wound; though, towards the end of the nineteen days, he could pass much more than escaped. The wound healed very rapidly; for on the nineteenth day there was only just room to pass the stomach tube without doing violence to the parts, and I thought I should on the following day have to pass the tube by the mouth; but at five o'clock, A.M., on the following morning, the groom came to me, saying, "the horse with the bad throat" was in great pain, throwing himself violently about in all directions. I went to his box, and found him in a dying state. He died ten minutes after.

*Post-mortem.*—I found extensive inflammation of the bowels to have been the cause of death. I carefully examined the wound, and found the divided edges of the œsophagus contracted, and reunited except for about one inch. The wound was doing well, and *would have completely healed had the horse lived a fortnight longer.* The sac was, however, still very large, very irregular, and with only traces of its proper surrounding muscular tissue. The muscles around were in about the same condition as when I operated.

In conclusion, I think any impartial observer may come to the conclusion, *that a wound in the œsophagus may and will heal as readily as other wounds.* But I should like to ask the same observer the question—If, supposing the animal had lived until the incision had been healed, the cure would have been perfect? I have no hesitation in answering, No! When I regard the serious and extensive disorganisation which had been going on during such a long period, the vast importance of the parts, and their peculiar office, I feel quite convinced that, had the horse survived until the wound had been perfectly healed, he would have been very little, if at all, benefited by the operation. The sac would have been diminished for a time, but the muscular investing tunic of the œsophagus could never have become restored to its former substance, or have regained its lost function.

## A REMEDY FOR COLIC.

*To the Editor of 'The Veterinarian.'*

SIR,—Having so many valuable recipes for the cure of colic, it may seem to be an act of supererogation to desire you to place the following on a page of '*The Veterinarian*;

but we all have our predilections, and this claims mine by its efficacy, its portability, and adaptation to immediate exhibition, either in the solid or liquid form, in the stable or on a journey; by its preservative qualities, as it may be kept for months without detriment; and by its applicability as a stimulant in appropriate doses in various diseases. I name it "the Ginger Electuary."

- R. Pulv. Zingib., pulv. Pimentæ, et Ol. Lini, āā ʒiij;  
 Pulv. Anisi, ʒiv;  
 Pulv. Camphor, ʒij;  
 Pulv. Opii, ʒv;  
 Ol. Juniperi, ʒij;  
 Ol. Cariï, m 40;  
 Sac. fæc., ʒviij.

Form an electuary weighing twenty-four ounces. If the treacle be thin, substitute palm oil for a portion of the linseed oil. Instead of powdering the opium I beat it up with its weight of moist sugar, which renders the mass easily divisible, and also greatly increases its solubility.

Dose, as a cordial, ʒj to ʒiss; as an antispasmodic, ʒij to ʒiij or ʒiijss, formed into balls, or dissolved in a pint of cold water or gruel.

Should there be tympanitis, or acidity of the contents of the alimentary canal (the latter we may reasonably suspect when the horse has been feeding on succulent grass, turnips, or potatoes,) an alkali may be added, as from ʒj to ʒij Sodæ Bicarbonas, or a similar dose of Ammoniæ Sesquicarbonas.

Should no relief be obtained in the course of an hour after giving a dose of the above, and there be no signs of inflammation observable, it may be repeated with the addition of an aperient, as Aloes or Linseed Oil, if thought proper; though, when the first dose fails, it is mostly prudent to follow it up with remedies more decidedly antispasmodic, sedative, and aperient, lest latent inflammation exist.

As a derivative in abdominal diseases, I prefer dry heat to fomentations, since the restlessness of the horse precludes the continuous application of the latter; whereas, by means of a tin bottle filled with hot water, and held to the belly, much good may be done. The sides of the bottle used by me for that purpose are concavo-convex, eighteen inches long by twelve broad, and one inch apart.

JOHN RELPH.

SEBERGHAM; Dec. 15th, 1852.

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## REVIEW.

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*Quid sit pulchrum, quid turpe, quid utile, quid non.*—HOR.

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### TWENTY-SIXTH ANNUAL REPORT OF THE ROYAL SOCIETY FOR THE PREVENTION OF CRUELTY TO ANIMALS. 1852.

No nobler object was ever attributed to medicine, no greater compliment paid to its professors, than when it was said, that the most admired improvements made in the science were those which had tended to the removal of disease and the alleviation of pain, by means comparatively mild and painless in their operation, or such as were of a nature to supersede operations, cruel in their performance and destructive in their character. In human medicine, the saving of a limb or an eye does the surgeon infinitely more credit than the cleverest performance of any operation, removing or mutilating such parts, can possibly reflect upon him; whilst, in veterinary medicine, any substitute for the hot iron, or for the knife, is at all times a feather in the practitioner's cap. It is true, since chloroform has shed its blessings upon human surgery, that operations are robbed of half their terrors; and that though the same anæsthetic charm be not so practicable with animals as with men, yet can even they be spared, under painful operations, many a pang and many a struggle. The Veterinary Art, as practised at the present day, has no less reason to be proud of its superiority of power to eradicate disease and remove lameness than it has of the comparative mildness of the remedies it employs: added to the absence of any tendency they may have to work mischief instead of good; which could not be said of the unscientific, and too often barbarous, means made use of under the denomination of "remedies" in the practice of the "farriery" of former days. No longer are the sound sensitive soles of horses' feet wrenched from the bones they furnish the natural coverings to, (an opera-



tion productive of most agonizing pain,) with the mistaken view of removing disease in the foot; no longer are horses' mouths burnt with a red-hot iron, with the most absurd intention of giving them relief while cutting their teeth; no longer are scalding hot oils poured into aching wounds, in order to "get them to heal;" no longer, in fine, are preposterous measures like these, as full of cruelty as absurdity, either countenanced by horse-men or practised by Veterinarians.

Whilst the Veterinarian is engaged in endeavours to furnish a salve for every wound, a balm for every pain, brute nature may become the subject of, he cannot shut his eyes to—nay, he must regard with peculiar satisfaction, the existence of a Society, which has for its whole, sole object, "The Prevention of Cruelty to Animals." When the numberless obligations come to be considered which our necessities and pleasures lay us under to animals, and particularly in a country like our own, where horses, and cattle, and sheep, constitute so large a share of our national wealth and prosperity, did not duty prompt us, interest would, not only to do what we could for them in the day of sickness or lameness, but to rescue them from cruelty and its treatment; and it would be well for the poor brute were human nature everywhere so constituted as to feel as *men* ought to feel for servants so useful and so devoted. Unfortunately, however, there are those in society whose feelings for the animal creation are bounded only by their own selfish requirements; or by their love of exacting, or rather exhausting, the energies of their horses, to a degree and repetition that either disables or kills their wretched tools outright, or else crows them or cripples them for the remainder of their lives.

The word "cruelty" admits of such latitude of definition, that we are afraid the meshes of this admirable Society's net of apprehension must, for it to *work*, be too wide to catch very many real inflictors of cruelty, such as over-riders and over-drivers of horses, which, otherwise, might richly deserve punishment; in fact, the selection of cases for summons must constitute one of the Society's difficulties of operation,

though the good they achieve by the arresting and punishment of flagrant abuse and ill-treatment cannot but have some salutary check on subjects of the class we are pointing attention to. The wretched creatures doomed to drag street-cabs constitute the description of horses most calling for the beneficent eye of the Society; to which we would add one other, to wit, horses in tradesmen's—particularly in butchers' carts; which, in some instances, are most shamefully treated by drivers who appear to have about as much feeling for their horses as they have for their dead carcases.

We are in doubt whether this useful, and in one sense, co-operative Society, be as generally known in the Veterinary world as it deserves to be; and this it is that induces us to trace an outline of its history, its objects, and its workings. The subject, as we well remember, was first brought under public notice by Mr. Martin, M.P., who, though ridiculed at first in his project, at length succeeded in obtaining from Parliament "powers for the protection of the brute creation." In his humane purpose, he was assisted by Lord Hatherton; while, at the present day, we find a person of no less renown in the sporting world than the Duke of Beaufort, taking the lead in the office of President of the "Royal Society for the Prevention of Cruelty to Animals." Without a Society, Mr. Martin found that his Act, when obtained, was likely to prove abortive: what was everybody's business turned out nobody's business—any person may chance to behold, in the course of his walks or rides, a case of cruelty, but what person scarcely will give himself the trouble, or devote the time to collect evidence, lodge information, &c., while it may be, after all, have to bear the costs of court? Herein is the great advantage of a Society like the present one; it takes the trouble and time and risk of expense on its own hands, and withal, conducts the proceedings with much better chance of their successful issue. And what renders this Society of more consideration still, is the *preventive* influence such legal proceedings, on its part, must necessarily have, and with the class of the community especially among whom are to be found the greatest delinquents.

With pride may Englishmen exclaim, "our country led the way in this good work;" and now, says Lord Hatherton,

"In Jamaica there is a similar institution; there is another at Dresden, with a prince of the royal house at its head; another society has been organised at Munich; and we know, as was adverted to in your last report, that a similar society has been formed in Paris, and a law passed, known by the name of the Grammont; and though it had not immediately the effect which was expected from it, it produced an association which is at length completely organised; and only last April twelve hundred persons were assembled in Paris, at the Conservatoire des Arts et Metiers, with the Minister of Commerce in the chair, and with the sanction of the name of the Prince President of the Republic, who has evinced a great desire to do every thing that is in his power to promote the internal improvement of his country, and of the French people. (Cheers.) That society solicited the attendance on that occasion of a member of your Committee, and Mr. William Adams Smith very kindly went over for that purpose, and addressed the meeting with so much feeling, that every paper of the press in Paris published a report of his speech at full length the next day. (Cheers.) I am happy, as connected with that society, to inform you that one of its Vice-Presidents—perhaps the more important because the elder of them—the Vicomte de Valmer, who sits on my left hand, and who has rendered important services to that society, has felt so far interested in our proceedings as to attend here to day, and that we shall have the pleasure of hearing from him what has been passing in France on this subject." (Loud Cheers.)

Monsieur de Valmer, who spoke some time after these observations of the Chairman, threw some fresh light on the subject by informing the meeting, that the Society established in Paris had found that rewards to those who treated their animals with humanity and kindness had proved to be more efficient *preventives* than punishment of the offenders had; to be added to which was the consideration, that the duty they thus had to perform was "as delightful as the other (punishment) was painful."

"Let us not deceive ourselves, gentlemen," said M. de Valmer, "more bad actions will be prevented by persuasion, and by the hope of recompense, than will be by the punish-

ment of the law or by repressions. It was this conviction which determined the Paris society to search out all the good actions towards animals,—all the services rendered by old servants who had always shown themselves compassionate towards the animals confided to their care, and to reward them publicly at the annual meeting, by the gift of medals of honour, and by the greatest publicity, in order to let all know that good conduct finds a recompense, at the same time that bad is punished. It does not belong to me to make eulogy of that mode, but I owe it to truth to say that it has obtained the most happy results, and that each one so rewarded, in returning to his family, in his own village, carrying that medal which he proudly shows, has gained more friends to our association,—has done more good to our cause, than a hundred convictions, which are soon forgotten, or which remain unknown, for the culpable do not boast of them. This is an amelioration which I suggest to you and which your wisdom will appreciate.”

The following paragraph of M. de Valmer’s speech comes nearer home to us Veterinarians:—

“Upon another point I wish to explain to you, because I know that you have already interested yourselves about it, and that during Mr. Adams Smith’s residence in Paris, he seriously occupied himself, as well as I also did. I refer to the practices at our Veterinary School at Alfort. I am happy to say that the cruelties at that establishment, imputed to men eminent for their science, have been much exaggerated by the press. I agree that the love of science does not excuse the cruelty, and I admit that the poor horses, devoted to death, are submitted to cruel operations; but besides that, a part of these operations are indispensable, in order to teach the art of curing to the young veterinarians, we have the formal promise of the distinguished chief of that establishment, and of the chief of the clinical department, that henceforth one half, at least, of the operations will be performed on dead horses. We have, besides, the promise of the Director General of Agriculture and Commerce, that a greater number of subjects shall be supplied, and thus the inevitable suffering will be diminished by three fourths.”

We strongly recommend this innovation upon our own ordinary practice to the consideration of the Society. Unlettered and feelingless as too many of our cabmen and coachmen are, we think they might by a little encourage-



ment, be brought to regard a *humanity-medal* in the same light a soldier does a good-conduct medal; and we feel more assured still, that when once this came to be made public, such preference might be given by hirers to the medalled cabman as might tell to his interest, if not to his *honour*.

Mr. Adams Smith, the gentleman who went to Paris for the purpose of aiding the exertions in the good cause of his "most excellent and kind-hearted friend, the Vicomte de Valmer," inclines to the same opinion in protesting strongly against the efficacy of punishment in all cases.

"I do not deny that punishment may be in many cases advisable—nay, necessary; but I do not think that punishment should be the *only* means by which we should carry out our objects, but that it should be auxiliary and subsidiary to something else much more effective, and therefore much more important. And why do I not think that punishment is effective,—at least to the extent we should wish it? In the first place, punishment presupposes that the cruelty and the crime have been committed,—it is punishment that we inflict, not cruelty that we prevent; in the second place, how many hundreds, how many thousands of cases of cruelty are there which pass by unnoticed, unheeded, and unpunished; for what man would expose his cruelty to the glaring eye of day, when he must know that punishment will be inflicted on him for the commission of that cruelty; but most assuredly the cruelty will be committed in secret, so that it shall not bring down punishment upon its perpetrator. In the third place, I doubt the beneficial effect of punishment, inasmuch as we must suppose that the cruel man is generally a vindictive man; and he again will punish in secret the animal which he may choose to suppose the author of his own suffering. And lastly, I would ask whether any one can believe that any laws can, in practice, reach other than the worst and most glaring cases. The cases of cruelty are so multiplied in their number, and so various and so nice in their degrees, that the most stringent laws can never embrace them; and even if they could, no magistrate would ever put them in force. Such cases, which in fact form ninety-nine parts in one hundred of the whole, must be met in some other way; they must be met by inculcating good principles—by educating the feelings, and by training the mind."

The suggestions of Mr. Daniell—who likewise spoke at

the meeting—based as they are upon the *datum* that “ignorance is the cause of most of the cruelty towards animals,” supposing they are so far well-grounded, appear to us to be of a much less practicable or workable nature. His notion is,

“That the very grooms of this country are men who should be thoroughly acquainted, either by attending lectures or in some other way, with the formation and beautiful organisation of the horse; and that they should not, in their own business, be ignorant individuals, as they too often are. In the operation, which they call trimming, or trimming up, and, as it were, making a horse look remarkably smart, every now and then you see a groom ignorantly removing those most useful appendages which nature has given the animal for its protection. You will see a groom removing the eyelashes from a horse, for the sole purpose of making it appear, as it were, better to the eye; but nothing can be so injudicious—nothing can be so painful to the animal as being deprived of those very appendages which are so useful under a hot sun, and the very object of which is, to protect the eye from injury, subject, as it is, to the various influences of small insects, which would otherwise annoy it.”

To the subjoined observations, coming from the Rev. R. Burgess, we feel the highest gratification in responding to while repeating here:—

“I cannot suppose that a man, (such as I have now described,) can understand of what materials an animal is made; he cannot understand that the sufferings of these animals are as acute as those which we feel under similar circumstances. There are unmistakeable proofs in the animal creation, that they are just as sensitive to pain as we are. Do we not see, if there be even a menace of punishment, they alter even in their very countenance? Do they not fear like ourselves? Do they not languish and die like ourselves? And if this be the case, are we not responsible for all that amount of needless suffering which is inflicted upon the animal creation; and shall we not—for I never fear to take this subject to the highest source, and make for it the highest appeal—shall we not be responsible to God for the abuse of those creatures which He has given for our use? (Loud cheers.) Will any one make me believe, that God has taken care even for the birds of the air, and for the fowls, and for the cattle upon a thousand hills—and that He means to pass by the trans-



gressions of man in this respect, in treating that part of His creation with cruelty, and in a manner in which He never intended that they should be treated? I think not."

And, in another part of the reverend gentleman's speech, he says—

"We will not allow a Society like this to be the object, occasionally, of those taunts and ridicule, which we hear from unthinking and unreasonable men. They may tell us, that such is the organisation of the insect, that he can suffer but little, and that he feels but little the pang of death. Our answer to that is that, however that may be as a subject of physiology, this Society is formed for the protection of the higher classes of animals; those whose organisation is such, that the seat of pain is so highly developed, that they suffer pain as great as that which the man can feel who is endowed with all the faculties of humanity. (Cheers.) Therefore, when I hear persons attempting to throw ridicule upon a Society like this, and upon those who contribute to its support, my answer is, 'The object is to alleviate pain in the higher classes of animals; to take away that cruelty which is inflicted upon your faithful dog; or upon that useful animal to man, the horse—which, we all know, are most susceptible of pain.' \* \* \* \* These are the animals whom we wish to preserve from the cruelty and insolence of men, animals who bear unmixed and unmitigated pain, with all the agonies of martyrdom, and without the alleviations of hope or sentiment."

We might with gratification and advantage multiply our extracts from the interesting "Report" before us; and to these we might add the recital of "cases" tried at the various police courts—some of which are referred to in the Report—in illustration of the working of the Society: we can, however, on this occasion, go no further than point attention to them as they stand annexed to the Report; and simply add, in conclusion, that they will be found backed up by 'An Abstract of the Act 12 and 13 Victoria, cap. 92, intitled An Act for the More Effectual Prevention of Cruelty to Animals.'

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## Foreign Department.

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### THE HORSE IN ASIA AND AFRICA.

It is surprising how much obscurity hangs about the origin of things even familiar to us. Of this we have had proof more than once in the necessary researches we have had on our hands in the present investigation. We have made many searches through the Bible and other sacred books, besides looking into Flavius Josephus, and the author of *Essais Philosophiques sur les Mœurs des divers Animaux domestiques étrangers*, published in 1783.

It has been long known that the deserts of Tartary, and of some islands to the east of India, and now of America as well, contained wild horses. In their state of wildness they lived in small herds, each herd having the most noble for its head. In fact, elephants, monkeys, cattle, asses, camels, elk and common deer, antelopes, in a word, all animals that live on herbs and fruits, appear to have a strong *penchant* for society. Everywhere, various and abundant food is presented to them; hence it is that there is so much less contention than there otherwise would be. And as families are continually increasing, they experience in this reunion of strength and means protection against animals in greater numbers who would destroy them. The same instinctive providence it is which, directed by cruel experience, prompts these animals to congregate in countries where desert parts are scarce, and where man becomes their most dangerous enemy.

The climate and soil of India have always been regarded as one little favorable for horses. The Greeks knew this in the time of Herodotus. The best breeds do not last long, unless they are crossed with Tartarean horses, Arabian, or Persian. Such as are of the primitive breed in India are commonly small and ill-shapen, and usually amble in going.

Indian travellers every year transport Arabian horses, which they embark at Guadarah, Mocha, Mascall, and Bussera. The ports of Mangalore and Culicut are those, however, where the horses are commonly embarked. On embarkation they pay the same duty for a well-bred as for a common horse.

Horses in India are treated with great care and kindness.

Twice in the day, and particularly after the shortest journey, they are led out in hand; and are regularly curried, or rubbed down, hand-rubbed in every part; a custom of which the advantages appear to have been known in Europe as well as in Asia. Columella, in his *Treatise on Agriculture*, recommends currying, particularly for cattle. The animal's ordinary food consists of roots of grass, rice straw, corn, and other grain of the country. A common thing enough is to boil with the farinaceous food a sheep's or kid's head, and afterwards to mix some butter with it, and knead all together into food for him. Many persons prefer giving their horses balls of wheaten flour, with which they mix molasses (*jagre*) and butter. Another kind of aliment to which they have recourse to create vigour, is to give horses every fifteen days, or at least once a month, balls composed of pepper, turmeric, coriander seed, garlic, and molasses, all pounded and mixed together. Some cavaliers add arack to the mass, and opium or bangg,\* though this is only used for a day of combat. Others, again, pretend to keep their animals in good condition simply by giving them daily a small handful of pepper, whole or but slightly contused.

Whether it be the effect of the heat of this regimen, considered so necessary, either in place of simple and more suitable diet, or on account of the heat of the climate and its enervating influence, (which, nevertheless, is less felt than in many parts of Arabia,) certain it is that in India there are a great many horses unquiet and restive, some, indeed, extremely vicious. And others there are in whom mettlesomeness, and even fury, may be regarded but as indications of phrensy as it were habitual to them.

Another effect of this heating diet with which valuable

\* *Bangg* is the name given to the tops of the hemp plant, (*canabis indica*), which in different parts of Asia grows in the form of a small shrub. Many Indians, Arabians, and Malays, are accustomed to drink daily spoonfuls of the juice expressed from these leaves while green, or after maceration; and often they add opium to the drink. And most people mingle these leaves with their tobacco to smoke; for which purpose they dry them in the shade, and carefully bruise them; and sometimes they put a pinch of the powder of bangg or else quicklime into green or stagnant water, which, without such addition, would be dangerous to drink. Such, also, was the composition of an aphrodisiac electuary, without doubt the *haschich*.

The plant thrives better in Asia than in Europe, and on that account is probably more active. The circumstances and habits of body under which it is employed are found to modify its effects; but whether it occasions a stupid heaviness, or excites symptoms of gaiety, such as the sardonic laugh, or whether, by a sort of erethism, it provokes a brutal courage or vigour, it is certain it affects the nervous system, diminishing or dulling sensibility. In fact, takers of bangg grow pallid and wan, exhibiting haggardness in their eyes, and sooner or later become the victims of *delirium tremens*.

horses are entertained, all being necessarily entire, is to provoke emissions of sperm, which likewise enervate them. The most simple means of obviating this is to tie permanently around the penis a cord tight enough to give pain on erection.

Wandering tribes regard horses as foremost among quadrupeds. And, indeed, they do constitute their chief patrimony, that in which they find their principal resources. For, should they have lost their wealth, or have their liberty threatened, or be in danger of dying from a dangerous wound, recurring ever to their old proverb—*Despair of nothing so long as the hoof of thy horse does not fail thee*, they ever rely upon the speed of their horse. And above all, the Arabians boast of the excellence of their horses of first caste. They take every possible care of them, caress, and even fondle them; and not only clean them with great pains, but paint, or rather stain with *enna*, their manes and tails of a bright red, and withal adorn them with jewels, and also charms, which serve to guard them against the eyes of the envious, and all accidents that might befall them—and the charms reckoned the most influential, are such as are made out of sentences taken from the Koran, and inclosed within a little bag by some holy personage, who, in doing so, pronounces certain appropriate orisons from the same admired source. This excellent breed is thought to have sprung originally from the stables of Solomon, wherein it was miraculously made perfect and pure and uncontaminated. Howsoever all this may be, certain it appears that this breed, which is accounted the most generous, has sprung up from time immemorial in Arabia, whence, under the appellation of *kaillan*, it has undergone division into different branches of greater or less estimation.

Touching the origin of the horse, the Bible informs us that the Jewish princes, before the time of Solomon, made use of asses and mules only, which indeed were the fittest animals for this mountainous country. We also learn from the same source, that the horses which, under the brilliant reign of that king, adorned Palestine, were by Solomon's orders purchased in Syria and Egypt; though in all these countries, instead of veritable traditions, spurious tales have, through ignorance, got abroad, and become adopted by the native inhabitants.

It is certain, according both to the Scriptures and the Hebrew antiquities of Josephus, that horses, some of the greatest beauty, existed both in Asia and Africa. The kings of Tyre and Sidon, on hearing the wonderful accounts of the wisdom



of Solomon, paid a visit to this prince, and made to him on the occasion some superb presents, among which were horses, not only the handsomest of their kind, but such as surpassed all others in speed. Mules of extraordinary beauty are also mentioned. The riches of Job consisted in flocks alone. No mention is made either of mules or horses, a circumstance denotive of remote antiquity.\*

A breed very common in Arabia is that called *hatik*. It is produced from good stallions and draft mares, called *kedich*. The Arabians take but small account of such low-bred crosses, nay, even of high-bred, if *crosses*. Out of these *kuedich*, and sometimes from *hatik* mares, it is that the Arabians derive their mules. They employ asses of the best description. Nevertheless, the progeny is not over excellent. We do not find in these countries mules equal to those bred in some of our own provinces.

France, through the Mediterranean, imports stallions for its studs from Syria and Africa. The stallions formerly imported into France for his Majesty's stud, with the view of improving the national breed, were but of the *hatik* race, and sometimes ordinary enough.

It is pretended, that the breed the most remarkable and esteemed of Africa, and particularly of Nubia, descend in a direct line from the five horses with which Mahomet fled, in 662, from Mecca. Bruce, who has traced the Nile to its source, says, that the horses of Nubia are the finest in the world.

There can be no doubt but that the climate and soil of Arabia are most favorable for the propagation of animals. Now, experience, which has, in those countries, demonstrated the necessity of occasionally crossing the individuals of certain breeds, has at the same time shown that such crossing should be with those of other countries, and still of pure origin. And the same experience has constantly shown, that in coupling a thorough-bred stallion with a mare of the ancient ordinary breed, we obtain a produce which, in spite of crossing and close approximation (of goodness) as well, will but come up, even after the fourth and fifth generation, to the inferior breed, from which (on the dam's side,) it originally sprang. Whereas, in crossing a thorough-bred mare covered by a good half-bred stallion, the differences will appear less marked, since the produce in time will more resemble the dam than the stallion. Such are the principles

\* De l'Origine des Loix, des Arts et des Sciences, et de leurs Progrès chez les Anciens Peuples, vol. vi, p. 51.



upon which the people of those countries appear ever to have proceeded to prevent these sort of *mesalliances*, and thus preserve, unsullied, the purity of their breeds.

English amateurs have not hesitated to give enormous prices for Arabian horses. They have succeeded in purchasing some good mares, which is the most difficult matter; since, through scrupulosity or policy, the chiefs especially object to the exportation of mares, and particularly into Christian countries. Such is the origin of English horses so vaunted over Europe; though it may be remarked that their speed, a primitive quality of this breed, could not, in the temperature of Great Britain, be maintained but by the most vigilant precautions and the most constant care.

The Arabs have a practice of clipping (*tondre*) their horses' tails, up to the age pretty well of three years, with the view of making the hair grow thicker and longer. And when clipped, the young animals carry their tails straighter and more erect, which is regarded among their best bred stock as a sign of vigour. It is possible this may have led English persons to contrive a means (nicking?) of making horses carry their tails well, and thus convey the idea of their possessing vigour and energy.

Let us now inquire how they manage in Asia and Africa to produce horses, not only graceful but really useful. Chiefs who travel about, prefer for their use mares to horses. And so, when they have to take a long and laboursome journey, they ride mares not in foal, or from which the foals may be taken away, the others travelling with the family and their herds. This preference arises from their individual superiority in point of work; and partly from the circumstance of mares, when they are all, as it were, harnessed together for the night, resting quietly; besides that any neigh they may utter is simple and weak, a great advantage for men with whom war is carried on between their chiefs. Their paces may not be so brilliant as those of horses, but the natives contend that with no less activity, mares exhibit more grace in going, have better wind, and are more tractable. Besides which, they endure heat, hunger, and thirst, better than horses; since mares have been known, in cases of emergency, to perform a journey of 100 leagues without hardly drawing bit, or even experiencing any inconvenience.

During the crusades (in 1192) Richard Cœur-de-Lion fell ill, and sent to ask for the physician of the Sultan Saladin for advice; to whose messenger, setting out for Richard's camp, El-Hakim boastingly said, "Thou art the first of thy sect, Nazareen, that hast ever pressed the flank of a courser of

such noble race. These horses are of the stock of those designated *winged* (*aîlés*), which yield the palm of speed to no one save to Borak from the Prophet. They are fed with the golden barley of the Yémen, mingled with spices, and a small proportion of dried mutton. Time passes so lightly over the heads of these generous animals, that the mare you are at present riding upon has seen five times five years pass over her head without having lost any of her speed and vigour."

The Arabians attribute such superiority to mares that they honour them with the name of *faras*, which literally signifies a horse fit for a person of distinction to ride. Probably for the same reason, in Hindostan, they often name a mare of noble stock, *madian*: this being, in point of fact, the name of a town on the border of a gulf in the Red Sea. The Turks, Persians, and Indian Moguls, are always in time of war upon entire horses; this arises from the difficulty they would experience in obtaining mares.

In some provinces of Turkey, a considerable number of the horses are cut, or have had castration practised; but if these cruel operations, which in a temperate climate weaken horses considerably, were to be practised in India, the horses would be rendered by them unfit for any service calling for vigour and courage. Some means that would answer the purpose of castration, without entailing any of the inconveniences which are the ordinary consequences of the operation, would, even in Europe, become a great boon.

Certain penitent Indians, in former days, invented a recipe, the use of which, however strongly made a person might be, rendered him unfit for procreation, not showing the smallest sign of virility. From the age of six or seven years, infants were taken, destined for this state of penitence. Every day they were made to eat a small parcel of the young leaves of a tree called *mairkousie*. They commenced by giving the children only the bulk of a hazel nut of the leaves, augmenting the dose up to the age of twenty-five years, in such manner that, in the latter years, they partook of them the bulk of a hen's egg.

An ancient orthodox patriarch of Constantinople informs us, that some fanatic monks of Palestine came naked through the streets and fields, without evincing any signs of virility.

The author cannot vouch for the truth of these tales, though he has been assured of their veracity. One interesting fact is said to be ascertained in regard to the specific, which is, that in producing absolute impotence, far from diminishing the strength, or altering the form of a well-made

body, it assures, on the contrary, health all but unchangeable. Physiologically speaking, however, it is thought that retrenching the genital organ, or paralysing its function, leads to the same result. Man becomes melancholic; and so we must expect the animal's ardour likewise to decrease.—*Recueil de Méd. Vét., Juillet, 1852.*

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## ON COW-POX, OR PRIMITIVE VACCINA.

BY M. GARREAU.

FROM cases and experiments that have come under the observation of M. Garreau, he has come to the deductions, 1st, that persons, who have had either the smallpox or cow-pox, submitted to the influence of the virulent lymph of the pox of the cow, as readily contract one or more *vaccine pustules* as persons who have never had either smallpox or cow-pox; and 2dly, that human medicine ought not to rely too much on primitive vaccina, either as a producer of cow-pox, or a preserver against human variola or smallpox. Hence he has been led to the conclusions—

1. That cow-pox, considered as the primitive source of vaccina, is nothing but a pure invention of man. 2. That Jenner inoculated nothing but the smallpox. And 3. That in regard to primitive vaccina or cow-pox, it has never served to protect man from variola or cow-pox. Which strange conclusions, M. Bouley observes, are in contradiction to the entire history of vaccination, and might, on that ground, be readily overturned.—*Recueil de Méd. Vét. d'Abou, 1852.*

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## ON A CASE OF ACUTE GLANDERS (IN MAN) OF SPONTANEOUS ORIGIN.

BY M. TEISSIER, Physician of the Hotel-Dieu of Lyons.

IF the transmission of acute glanders from Solipedes to man be an admitted fact; if even the transmission of the same disease from man to man be admitted as possible, as appeared to be the case with the medical student who died from dressing a patient affected with glanders in the

Hospital St. Antoine, still is the *spontaneous* developmēt of the disease looked upon as peculiar to Solipedes alone. Although men be submitted to the same influences as produce glanders and farcy in horses, yet is there no fact to prove that they become affected by such causes. And notwithstanding there are some scattered facts of the kind on record, still have they not found attention, either from their being ill-established, or from the circumstance of their being considered without the pale of possibility.

M. Teissier proposes to show, in the face of these conclusions, 1st. That the case in question is fairly one of glanders; and 2dly. That the disease was not communicated either by inoculation or infection.

A woman, named Adelaide James, forty-seven years of age, was admitted into the Hôtel-Dieu on the 8th of June, 1851, married, but for two years has not lived with her husband. She is a silk-worker, and lives in apartments open and well ventilated, leading a sedentary life. She has had no communication with horses, or coachmen, or grooms, or cavalry soldiers; in fact, has never touched anything likely to infect her with glanders. In 1849 she contracted syphilis, of which she got well in a couple of months.

On the 30th of May, 1851, having, as she said, exposed herself to a current of air whilst in a perspiration, she had a shivering fit which lasted four hours, accompanied with weakness, cephalalgia, anorexia, and more than all, sharp pains in her joints. On the fourth day afterwards, reaction having become established, a white pustule with a red areola came upon her right leg. On the fifth, her two feet became attacked with œdematous erysipelas, while upon her arms as well as legs suddenly appeared tumours, with or without change of colour in the skin, consisting of hard and more or less painful nodosities; of which one, soon after, suppurated. This happened before her admission into the hospital. Afterwards, her legs became œdematous, and presented diffuse erysipelatous patches. Tumours, some hard and painful, with or without inflammation, continue to arise upon her arms and legs, while others become abscesses and fluctuate. Fever, with slight occasional delirium. Fresh abscesses form, whilst some of the old ones appear to be absorbed; and the ulcerations upon the leg are some of them becoming gangrenous, and she cannot bear the slightest pressure upon it.

Here was a case of low fever with tendency to break out into manifold small abscesses, with erysipelatous inflammation, and they put on the aspect of varioliform pustules,



altogether, now, assuming the form more of acute glanders than anything else; and yet, as there was no purulent secretion from the nasal fossæ, I still suspended my judgment. M. Lecoq, (veterinarian,) to whom I showed the case, was, in the absence of nasal discharge and glandular enlargement, unwilling to pronounce upon it. Abscesses and pustules continue to multiply; the face becomes swollen and erysipelatous, and phlyctenæ appear upon it; the pulse rises to 130; the tongue looks as though it had been roasted, and little black incrustations are seen inside the nose, but no discharge appears. Nevertheless, if the case be not one of glanders, we know of nothing like it in our nosology. Fourteen days after admission, Adelaide James expired under an attack of diarrhœa and fresh eruptions of phlyctenæ.

*Post-mortem.*—Six or seven bullæ upon the limbs; two gangrenous phlyctenæ, and twenty-nine opaque pustules, resembling those of variola, were found in various parts, twenty-two of which are in a state of abscess, and two gangrenous; some being subcutaneous, others deep-seated among the muscles, and others intra-articular. The nasal fossæ exhibit thickening, softening, and reddening of the lining membrane, with infiltration and readiness of detachment from the bone, and in some place erosions infiltrated with pus (an essential character of glanders). The turbinated protuberances had turned black, and were filled with sanguinolent and purulent mucosities, giving evidence of speedy discharge from the nose. The lungs were infiltrated with black blood. The genital organs exhibited no syphilitic trace, nor were the lymphatic glands visibly engorged.

M. Lecoq, importuned by me to give his opinion of the case, said that if such symptoms had presented themselves in a horse, he should have called it *acute glanders*. Still, one proof was wanting, and that was inoculation. This was resorted to. Pus taken during life from one of the abscesses was imparted by inoculation to a horse in low condition, but in good health, and in ten days after this animal succumbed under all the symptoms of acute glanders.

In reviewing the above case, M. Teissier cannot regard it as having any relationship to irregular smallpox, malignant pustule, phlebitis, angeioleucitis, or even secondary syphilis; neither does he think there exists any grounds for pronouncing the disease under which Adelaide James laboured to be a morbid individuality, hitherto undescribed, having some relations to glanders, but yet not identical with that affection. There is certainly a difficulty in conceiving such a disease (supposing it to be glanders) arising spontaneously



in a human being; and yet every inquiry I have been able to make, convinces me that there is no room for belief that either inoculation or infection had anything to do with its production. And what tends to favour the notion that the disease in this case had spontaneous origin, is the fact of its not being the only one of the kind on record. In 1848, Dr. Bourrier related a case of farcy-glanders in a man who was known to have had no communication either with horses or any other source of contagion; but which was disputed from the circumstance of the man being a *lancer* or cavalry soldier. The same year, an Irish surgeon, by name Frazer, published in the *Dublin Medical Press* the case of Patrick Geary, who died of symptoms of glanders without ever having been exposed to glandered infection. In 1847, M. Trousseau published another similar instance in a woman who died in the hospital Necker under the most unequivocal symptoms of glanders, without ever having had any chance of contagious exposure; though, as her business was to card hair for mattresses coming from slaughter-houses, it was presumed infection was conveyed in that manner. A similar case is given by M. Teissier, in his remarkable work, of a gardener, who died of symptoms of acute glanders without ever having had commerce with horses, or ever lived in a stable; though the author of it comes to the strange conclusion that the case was not glanders, but *purulent diathesis*. And it is but a few days ago since M. Huzard met with a case of the same kind, which, as he could not account for its production either by inoculation or infection, he explains by referring to a group of symptoms and lesions denotive of a special affection, indicative rather of the termination of certain typhoid and gangrenous diseases than of the name recently given to it, of acute glanders.

All things considered, M. Teissier believes himself justified in coming to the conclusions—

1st. That Adelaide James was certainly affected with acute glanders, in its specific and virulent form; a fact the inoculation practised at the Veterinary School was of itself sufficient to demonstrate.

2dly. That the disease arose spontaneously, since the most scrupulous inquiry failed to elicit the smallest presumable cause of contagion.—*Gazette Médicale*, 1852, No. 32.

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## Home Department.

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### ROYAL AGRICULTURAL SOCIETY.

*The Report read at the Annual Meeting of this Society, held 11th December, 1852, attracted considerable interest, from its being found to embody and adopt the recommendation of the Committee with respect to the regulations under which live stock should be for the future allowed to compete at the Annual Exhibition of the Society.*

For some time past the Council of the Society have felt that considerable alterations were called for in regard to their annual exhibition. Established originally for the purpose of improvement in the *breed* of animals, the shows have of late years consisted almost exclusively of over-fatted beasts, and the objects of the Society have thus been diverted to merely encouraging the feeding of animals for the butcher rather than improving the breed. The consequence has been that aged animals, useless for breeding purposes, have, by the use of milk, meal, oil-cake, and similar descriptions of food, been fattened up to a great weight, and have carried off the principal prizes of the Society. Young heifers have, upon the same mistaken principle, been fattened for the purposes of show, utterly regardless of the future value of their breeding qualities, many of those which have taken the larger prizes not having afterwards given birth to a single live calf. The evil of over-feeding has also been manifest in the almost total concealment of the natural forms of the best breeds of sheep and cattle, and the great difficulty of arriving at a correct opinion of their merits. In addition to this, it has been for some time a subject of general observation and regret, that many of the best breeders of stock have refused to send their animals to the show, as they knew there would be no chance of their obtaining a prize when put in competition with fatter animals, and they declined to sacrifice good breeding qualities to mere feeding capabilities. In order, therefore, to prevent the judges awarding the prizes of the Society to the animals whose merit consists rather in their value to the butcher, or in too many instances to the tallow-melter, than in their qualifications of breed, some very useful regulations have been drawn up by the Council.

The principal of these regulations are—

That no bull shall be exhibited above four years of age ; and in the case of heifers it is necessary, in order to qualify any one for the prize, that she must have produced a live calf within the previous twelve months. Such prize is not however to be given, until it has been duly certified that she has produced a live calf before the month of February next after the exhibition ; and “juries of condition” are to decide upon the admissibility of the animals. These regulations, without excluding animals of good breed, having a natural propensity to fatten (*i. e.* giving encouragement at the same time to produce fat animals), will effectually shut out stock valueless for breeding purposes, and thus tend greatly to improve the character, and to increase the practical utility of the country meetings of this valuable and useful society.

Some little opposition was shown to the new regulations by one or two persons present, and, as in the case of all measures of reform, some predictions of “the evils likely to result from so dangerous a step” were indulged in ; the good sense of the majority, however, and the evident practical and useful character of the recommendations of the Council, obtained for them, ultimately, the unanimous approval of the meeting.—*Morning Chronicle*, 13th December, 1852.

## AUSTRALIAN HORSES.

*To the Editor of the Athenæum.*

SIR,—By the extract of a letter from Swan River, published in your issue of the 24th ultimo, the public and the Government are informed, that *at last* measures have been taken to carry out the plans proposed by Mr. Yule for the exportation of horses to India. This Waler “scheme” (which is likely to be “a whale in a butter-boat” one,) has been *talked* of many years, and the report upon it is *still* talk.

Before Mr. Yule and the “affluent few” (!) who are to compose this talked-of Horse-breeding Company can guarantee to themselves, to the Government, and to the public, success in this “*scheme*,” it is necessary for them to make themselves pretty certain on several important points. The Company should be personally acquainted with the kind of horse required for cavalry and an Indian public ; they should satisfy themselves (which they have not done yet,) that the Waler will stand work in India ; they should know how

horses in England are bred ; and they should remember that low prices and economy are daily becoming more and more the order of the day, both with Government and with every individual of the public. The economical and wide-awake public already require a much better horse for £30 or £40 than the ill-bred, bad-constitutioned, buck-jumping, jibbing horses that have hitherto been sent to Madras.

The Government, the Company, and the public, should well weigh every point 'ere they urge on each other to an undertaking which will end in the disgust and ruin of one, and perhaps all. I myself should be very disinclined to risk my money in a breeding company such as the one proposed, depending upon India for the sale of their stock. Are the projectors and agitators of this embryo Company active men, who have earned for themselves a name in horse matters, and are going to try their luck on the strength of there being no stud, and on the objectionable remounting system, which allows the whole selection and fixing of price of horses for eight regiments of cavalry, six troops of horse artillery, and two horse batteries, to be in the hands of one single individual, and without a public committee ?

It should be remembered that the salaries and wages of every individual in India are being reduced, and also that Government are likely to offer *lower* sums for horses than heretofore, and this will be certain if the regular cavalry are turned into irregulars. Under all considerations, therefore, will £40 repay the "affluent few" for *properly*-bred horses, after allowing for freight, losses, the salaries and wages of superintendent, veterinary surgeon, agent, &c. &c. ? The wages of servants in Australia are very high, and in an extensive and properly-conducted breeding establishment, there must be no lack of hands, or loss from some cause or other will be the result. It must also be recollected that the uncultivated plains of Australia will no more produce, of themselves, good horses, than workhouse fare will make a child an athlete. If, therefore, you increase the expense of breeding in Australia beyond what it now is, (and certain is it that you must,) the price of the horse will be greater than at present ; and who in these changed times will pay more than £30 or £40 ?

It is further stated in this last letter from Australia, that "much valuable time has been allowed to slip by, and we fear that from the altered circumstances of the colony, the settlers will not take up the matter with that energy which they would have done at the period the scheme was first



brought before their notice." Too true, indeed, is it, that many many years' valuable time has been allowed to slip by,—by the *Government*. Long ere this there should have been flourishing satisfactory studs as in Bengal, furnishing a fine bony war horse at 150 to 200 rupees cheaper than the sum now paid; but success could never be expected on the Zumeendaree, and other glaringly erroneous systems which have been carried on.

It is very clear to those who can see sufficiently deep, and who understand horse matters, that supporting and depending upon the Australian horse market will be a failure;—it will answer the object of a certain few for the time, and the end of it will be, that there will be no studs, and no Arab dealers, and then the Government and the public will be at the considerate mercy of the Company, who will be found to be taken up with the sale and purchase of their wool, sugar, and tinware, instead of visiting and attending to the stock.

I can easily understand the colonists not now being likely to take up the matter with that energy that they would have done at first. They are the very people to be guided by, for depend on it, they have well pro'd and con'd the "scheme" kept alive only by a very few.

If the colonists saw that they were to get a return for their money, depend on it they would now take up the matter even with *more* energy than at first. They know of course, as well as I do, that Australians in the Calcutta market have sold at a *loss* for a very long time. Cook and Co., and the rest of the Calcutta public, lay out their money in country and government stud breds, they having proved themselves to be the animals for safety and constant work. And I would ask the Madras public what *they* will now give for the generality of Madras Walers?

The extract of the Swan River letter is very like the prospectus for a forced railroad, for instance—"the Company will be composed of a few affluent individuals, and it is not intended that the numbers should be materially increased, neither is it wished that any shares be taken up in this colony, although, if particularly requested, it would not be objected, that the colonists possess a small interest in the speculation!" Very plausible, indeed. The writer is a valuable man for a "Company," and I should advise him at once to draw out a prospectus of a railroad from Swan River to Madras, as a "sure fortune" line, not forgetting to get an agent at Capel Court.



The Indian public having had enough of the present style of Waler, the "affluent few" need not be under any alarm lest they should not get as many shares as they want.

It is well known that the Sydney horse is not to be purchased at the same price as a Swan River one, because he has been properly bred and reared, and is also worth a price at the place in proportion to the population, &c. And as the Swan River Settlement increases, and as horses are more expensively reared, so will they also increase in price.

In the Madras Presidency there are suitable places and climate for breeding as perfect a horse as can be desired. Forage also can be obtained cheap, and as good as in England; as servants in India are also cheap, what is there to prevent any number of horses being bred cheaper and better than can be obtained from Australia?

The Bengal stud-horse is a fine large powerful animal, and as near perfection as can be wished. In those particulars where they are defective, it arises from the fact that those who have had the managing of the studs appear to have been ignorant of the simple fact, that all young animals, whether man or beast, require to run or walk about at pleasure, for the perfect development of their legs and feet, and indeed the whole body. But instead of this, they are tied up to the manger about twenty-two hours, and only get exercise for an hour morning and evening; and if there be rain, no exercise at all.

Really, the agitators of this embryo horse-breeding Company appear to have settled everything very comfortably for their select "affluent few;"—Mr. Simpson has full power to do this, that, and t'other, and make himself superintendent, and Mr. Hagger agent! But, as yet, *in India*, we know nothing about this grand company, and I doubt if any one will ever inquire after it with a view to taking shares, for we, like the colonists of Swan River, have now very good reasons "for not taking up the matter with the energy we should have done at first!"

To conclude, I would advise the Madras public and the Government to take pattern from Bengal, and trust to the suitable and cheap cattle that India can produce.

A breeding establishment in India would answer admirably, if worked economically, and on proper principles, by active men.

Your most obedient,  
ANTI-JOBBERY.

August 6th, 1852.

## PASSIONS OF ANIMALS.

“SPRY and others state that the snake-catchers in the East Indies have the art of enticing snakes from their concealment, by a kind of song or humming sound; and Neales affirms, that he tamed rattle-snakes by music, and, however dangerous they might be, he completely subdued them; which is confirmed by Chateaubriand, who saw the anger of one of these reptiles completely subdued by the tones of a flute. Lenz, on the other hand, describes these as mere fables, as in no instance could he ever succeed in making any impression on a snake by music, but he cites the instance of a goose which followed a harp-player whenever he performed. Bechstein says that mice are attracted by music, and Bettina noticed the same in running up the gamut. An elephant in Paris, within hearing of a concert, expressed, by its gestures, its pleasures at some pieces, whilst others did not affect it. Some dogs are singularly excited by music, and accompany it with a distressing kind of howl. It is known to sportsmen that the deer and roe listen to music; and, according to Obsonville, monkeys are attracted by it, and exhibit marked delight.

“It is certain that insects are sensible of sound; for crickets and grasshoppers answer to each other’s chirpings, and they may be even enticed and caught by the imitation of their note. In Italy, the noise made by the chirpings of the Cicada plebeia is almost deafening, and it has been noticed that a beginning made by one individual, has been immediately responded to by hundreds. The Anobium panicum, or death-watch, makes a peculiar ticking sound (whence its name,) and the author has often brought an individual near him by striking his nail on the table, in imitation of its note, which, however, does not proceed from the insect, but is made by striking its mandibles on the wood.

“Bees, it is alleged, recognise the voice of their keeper, and as the queen has the power of uttering a sharp note, which can be distinctly heard by a bystander, before the swarming of hive, it is natural to conclude that it is made for some object, and that it is also perceptible by the whole community. As regards the absurdity of the country practice of ringing a bell or of striking two pieces of metal together when a swarm is in the air, under the impression that the sound attracts the bees to the spot, it is hardly to be wished that it should be discontinued, for, however discordant it may be, it is yet an honest piece of rural life. Its real object,

long since lost sight of, was to advertise the neighbours, in the event of the swarm taking a distant flight; for by beelaw a man is allowed to follow his swarm on another person's property, and to secure that which without a notice the other might appropriate as a lucky windfall.

"The organ of hearing in insects is most probably situated in the antennæ.

"Fish can hear very distinctly; carp distinguish the sound of a bell, and the voice of their keeper, when called to be fed, which the author witnessed at a pond containing some carp of an amazing size, in the Imperial gardens at Peterhof, near St. Petersburg; a similar circumstance is also mentioned with regard to the trunk-fish, in the island of Mauritius. Guana lizards are said to be enticed into traps by whistling to them.

"Birds are endowed with a most susceptible power of hearing; provided most wisely as a means of preservation, with regard to their peculiar habits. Obstructed as their sight must often be, by the intervention of branches and long grass, they would otherwise fall an easy prey; but the sound of a footstep, or the snapping of a twig, excites their immediate alarm, and they ensure safety by flight. Some birds not only recognise the voice of their master, but distinguish its intonation, whether as coaxing them, or as calling them to feed. But however keen the faculty in general, song-birds must yet possess a much greater development; for they not only show an ear for melody, by rising and falling in their notes, but they will even pick up an air from a flageolet or an organ. The mocking-bird of America is undoubtedly the most extraordinary proof of this faculty; for it will imitate as well the songs and cries of other birds, as the sounds of different animals. Of all birds, the owl has probably the most exquisite sense of hearing. The mere examination of the outward part of the organ is sufficient to prove that fact with certainty. Dependent on it for its means of subsistence, as enabling it to perceive its prey in the shades of evening, when its sight, however piercing, can only enable it to seize the object, whose slightest motion denounces its presence; it sails along on its noiseless silken wing, exciting no alarm in other things, though it receives it from them.

"Among mammalia, the formation of the ear varies in very many cases, according to the habits and peculiar nature of the animal. The portion of the ear of the mole assigned for the cognisance of sounds passing in the air, is less perfect than those which, deeper seated, receive the impression

of any sound or vibration proceeding from the earth. The beaver has the power, when diving, to fold its ear backwards on its head; and the water-shrew, for the same purpose, has three distinct flaps, which close the orifice, in the same manner that many diving and burrowing animals are furnished with flaps to the nose, by which they close the entrance to all injurious bodies. The hippopotamus, which remains for lengthened periods beneath the surface of the water, is also provided with a valve-like apparatus. Hares and rabbits, which squat close on the ground, and which might be more readily discovered were any projecting point of their bodies visible, fold their ears flat backwards. In all, this sense is remarkably keen, and with horses it is only exceeded by that of the smell; they hear sounds and are restless long before the rider can perceive an animal or a human being in the distance. The carrier horses in Switzerland hear the fall of an avalanche, and warn their master of the danger, by their terror, and by refusing to advance, and even by turning in an opposite direction. The acute sensibility of this organ is somewhat obstructed by the bushy hairs which grow in the outer sheath, and thus horse-dealers cut them out from horses they have for sale, in order that sounds, striking on the nerves with greater force, may, by exciting the animals, give them a more lively appearance.

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“The dog remembers his master and the members of his family after an absence of years, and the persons of those who have ill-treated it. One which M. d’Obsonville took with him from Pondicherry on a journey of upwards of three hundred miles, through a country hardly intersected by a road, and which occupied three weeks to traverse, having lost its master, returned at once to Pondicherry. Similar instances of the power of memory, and of finding their way through strange districts, are of daily occurrence, and it is astonishing with what speed they return to their homes from remote distances. The dog of an officer who fell in battle in Poland, found its way back to his estate near Leipzig in an inconceivable short space of time. The dog of a little Savoyard being sold and carried to Rome, was shut up for safety, but it soon succeeded in making its escape, and reached its former home after a few days in a most emaciated state. The hunted fox, driven by the chase far beyond its accustomed haunts, finds its way back to them in the course of a few hours.

“These cases may be multiplied to any extent; and the numerous facts that are recorded are familiar to almost



every reader. No animal is so entirely ungifted as not to have a consciousness of the circumstances and place in which it has previously found food and shelter, or has been attended to; and in the entire range of the operation of the various faculties, from the lowest glimmering to their most perfect development, nature has so excellently adapted them to each want and mode of life, and has so beautifully counter-balanced them, that in the whole scheme of the creation no greater harmony can be found.

“This power of memory is the source of obedience, discipline, habit, and intelligence in the animal, and enables man to direct the energies he has controlled. The lesson once taught, the training and submission once enforced, are never forgotten, and even produce new and astonishing proofs and combinations of intelligence.

“Mr. Brockedon, in his ‘Journal of Excursions in the Alps,’ says: ‘In these valleys, the early hour of retirement placed us in the difficult situation of fighting our way to the inn-door at Lanslebourg, against a magnificent Savoyard dog, who barked and howled defiance at our attempts, for which he stood some chance of being shot. At length, however, a man hearing our threats, popped his head out of a window, and entreated our forbearance. We were soon admitted, and refreshments amply provided. I had heard a story of a duel fought here, from Mr. N., in which he was a principal, about a dog, and, upon inquiry, learnt that this was the same animal. A party of four young officers, returning from Genoa, stopped here. Mr. N. had brought with him a beautiful little pet dog, which had been presented to him by a lady on his leaving Genoa. Struck by the appearance of the fine dog at the inn, one of the officers bought it. He was fairly informed that the dog had been already sold to an Englishman, who had taken it as far as Lyons, where the dog escaped, and returned (two hundred miles) to Lanslebourg. The officer who made the purchase, intended to fasten it in the same place with the little dog; this Mr. N. objected to, when his brother officer made some offensive allusions to the lady from whom the pet had been received. An apology was demanded, and refused. Swords were instantly drawn; they fought in the room. Mr. N. wounded and disarmed his antagonist; an apology for the injurious reflections followed, and the party proceeded on their way to England, punished by having the painful duty to perform all the way of nursing their wounded companion. The dog, however, was taken and carried safely as far as Paris, where he again escaped, and returned home (five hundred miles!). I was now



informed that the dog had been sold a third time to an Englishman, and again, in spite of precautions having been taken, he had returned to Lanslebourg from the sea-coast, Calais.'

"Lindley Murray states in his memoirs, that, on visiting as a boy the elephants which were then kept at the Queen's stables, Buckingham-house, he withdrew from one of them with his cane, a part of the hay which it was collecting on the floor with its proboscis. The animal was displeased, and the keeper told him it would never forget the injury. Returning in about six weeks afterwards with some friends, he found that though some hundreds of people had been there since his first visit, the animal soon recognised him. He made no attempt to tease it, and had no conception of any concealed resentment. On a sudden, however, when he was within the supposed reach of the proboscis, it threw it towards him with such violence, that had he not by an active effort thrown himself aside, he would probably have been killed, or have received some material injury.

"Mr. Hartley, in the isle of Egina, narrates that, passing by a flock of sheep, he asked the shepherd if he gave names to his sheep, and if they obeyed him when he called them by their names? He bade him call one; he did so, and it instantly left its pasturage and its companions, and ran up to him with signs of pleasure, and with a prompt obedience which he had never before witnessed in any other animal. Mr. Wilderspin says he frequently witnessed in Cumberland and other mountainous districts an illustration of the parable that the sheep knows the good shepherd's voice. When the sun is about to set, the shepherd's boy advances along the foot of a chain of mountains, and giving a signal by a peculiar call or whistle, the flocks which were scattered like spots of snow over those stupendous heights, begin to move simultaneously, and collecting, as they pour down the steep descent, approach him in order, without leaving one solitary straggler.

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"There is an anecdote told at the Red Lion Inn, Hungerford, of a circumstance which occurred there some years ago. A traveller, coming into the inn-yard with his chaise, ran over and bruised the leg of a Newfoundland dog, and while the injury was being examined, a raven stood by as a concerned spectator; for as soon as the dog was tied up under the manger, the raven not only visited him, but brought him bones, and attended him with particular and repeated marks of kindness. Besides the sympathy in the

bird, there was also a remarkable instance of recollection and of association of ideas, for the bird had been brought up with a dog, between whom the affection was mutual; and this dog having broken its leg, the raven attended it constantly while it was confined, waiting on it, carrying it provisions, and scarcely ever leaving it. On one occasion, when the stable-door had been shut, and the raven had been deprived of the company of its friend all night, the hostler found in the morning the door so pecked away, that, had it not been opened, the raven would have made its entrance in another hour. Several other acts of kindness to dogs had been noticed, and particularly to maimed or wounded ones.

“When a pig is caught in a gate, or suffers from any domestic operation, all the rest are seen to gather round it, to lend their fruitless assistance, and to sympathise with its sufferings. When the old starved elephant, which Bishop Heber saw, fell down, another elephant of very large size, and in somewhat better plight, was brought to assist. ‘I was much struck,’ says the Bishop, ‘with the almost human expression of surprise, alarm, and perplexity in his countenance, when he approached his fallen companion. They fastened a chain round his neck and the body of the sick beast, and urged him in all ways, by encouragement and blows, to drag him up, even thrusting spears into his flanks. He pulled stoutly for a minute, but on the first groan his companion gave, he stopped short, turned fiercely round with a loud roar, and with his trunk and fore-feet began to attempt to loosen the chain from his neck.’ The sympathy of the animal for his suffering fellow was greater than his habitual obedience. But elephants accommodate themselves to circumstances in even a more extraordinary manner than such a refusal as this to perform a disagreeable task. The Baron de Lauriston states that he was at Lucknow when an epidemic distemper was raging, and when the road to the palace was covered with the sick and the dying. The Nabob came out upon his elephant. His slaves, regardless of their unhappy fellow-creatures, made no attempt to clear the road; but the more charitable beast, without any command, lifted some out of the way with his trunk, and stepped so carefully among the rest, that none were hurt. Another extraordinary instance of sympathetic intelligence is recorded upon the authority of an artillery officer who witnessed the transaction:—The battering train going to the siege of Seringapatam, had to cross the sandy bed of a river, that resembled other rivers of the East, which

leave, during the summer season, but a small stream of water running through them, though their beds are mostly of considerable breadth, very heavy for draught, and abounding in quicksands. It happened that an artilleryman, who was seated on the tumbril of one of the guns, by some accident fell off, in such a situation that in a minute or two the hind wheel must have gone over him. The elephant, which was stationed behind the gun, perceiving the predicament in which the man was, instantly, without any warning from its keepers, lifted up the wheel with its trunk, and kept it suspended till the carriage had passed clear of him.

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“Birds have some little leaven of envy in their composition. Vultures drive each other clamorously away from their carrion; when the wood-pecker sees another hammering at a tree, it flies at it and attempts to dislodge it, in order to secure the insect within; the petrels quarrel for their food so furiously and in such numbers, that they often allow themselves to be caught in the blindness of their rage; horses attempt either to drive each other away from their crib, or try to monopolise their neighbour’s measure; and dogs abstain from that which is intrusted to them only so long as they are unmolested, for as soon as they find themselves unable to defend their charge from other dogs, they fall to it themselves. They are also envious of attentions and caresses bestowed on other dogs by their master. A dog was trained by his master to execute several commissions. When he wanted him to go to the tavern, he made certain signs, which the dog understood, and immediately set off to bring home whatever the tavern-keeper put into the basket intended for his master. He went on in this manner for some time without accident; when one evening as he was returning with some hot pies for his master’s supper, two dogs in the neighbourhood, attracted by the inviting smell of the pastry, took it into their heads to attack the faithful messenger. The dog instantly dropped the basket, and placing himself before it, flew with determined courage at the first that advanced; but while he was thus engaged in fighting with one, the other dog ran to the basket and began to devour the pies. This was an embarrassing case for the poor animal. After a moment’s reflection, seeing that it was impossible to preserve the pies for his master, he determined at least to have them for himself; and, accordingly, without any further hesitation, he darted upon them and dispatched all that remained.

“As regards cruelty, the only real example of it is found



in cats and in animals of the weasel tribe, which cripple their prey to prevent their escape, and play with it in a living state for a considerable time.”—*The Passions of Animals*. By Edward P. Thompson. London: Chapman and Hall.

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## GREYHOUNDS.

“EVERY greyhound should be *proportionally* ‘long, low, and strong,’ that is to say, he should not be a great, leggy, weak animal, unfit for contention in any country. All breeds, likewise, should have good legs and feet, the elbows neither turned out nor in, the knees and hocks well let down, with free, sloping shoulders. The neck should be long enough to reach the hare without losing the stride, and the teeth strong enough to hold her when seized. There is a great difference of opinion as to the feet, which are generally recommended to be like that of the cat, but these are not so calculated for arable land, since they sink in too much at every stride. The same is found to be the case in the horse, in which a large open foot is found to answer better in going through dirt than the small foot, which is otherwise preferable. It is necessary, however, that the toes should not spread, and that the knuckles should be well up, or otherwise the foot will not stand sufficient work for training purposes; but if the foot is only good enough to carry the animal through his preparatory work, it will often stand the shocks of the course better than the very perfect looking one, in which the weight is carried upon the ends of the toes, and is not much supported by the middle pad; but a thorough splay-foot is in all cases to be avoided; the loins and thighs, too, can scarcely be too strong, but in all other points the various breeds differ so much that it is useless to insist upon them except in connection with each particular class.

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“There is a prevailing objection to ‘breeding in and in’ in all our domestic animals, which is peculiarly applicable to the greyhound, in which you want above all the very quality which is especially deteriorated by this practice, viz., stoutness. It is true you may get beauty, size, speed—in fact, anything but stoutness; but this will assuredly be wanting in all animals which have been subjected to a long process of crossing one with another of the same family. There is no objection to resorting occasionally to the same blood for

a particular purpose, but if that purpose can be attained by any other blood there can be no question as to the propriety of avoiding the risk of deterioration. Speed and size are both so desirable that it is worth while to sacrifice something in order to attain them, and we see them often displayed in a remarkable manner in kennels which are much confined to their own cross of blood; as, for instance, in that of Lord Stradbroke. As good examples of success in breeding ‘once in,’ as it is termed, the celebrated litters lately bred by Mr Brown and Mr. Jardine may be adduced—in both of which the King Cob blood existed in the sire as well as the dam—Figaro and Bessy Bedlam being by him, as well as Tollwife, whilst Sam is by Traveller out of Tippitywitchet, by King Cob. These greyhounds are almost all similar in their characteristics to their renowned progenitor, and may certainly be considered as instances of a ‘hit.’ But, though all first-class greyhounds, they have shown less stoutness than is desirable, especially the Bedlamite, Bedlam Lass, &c., litter, which, if as stout and honest as they are fast and clever, would be almost invincible. It may, therefore, be assumed that we are justified in expecting success from breeding ‘once in,’ when our object is to attain speed, working qualities, or size; but that to procure the necessary adjunct of stoutness, we must apply to some fresh source, and the stouter that blood is, of course, the better.

“With regard to the age to breed from, it may be laid down as a law that two young animals seldom produce so good a progeny as is the case where one at least is of more mature years. The bitch should certainly not be less than two years old, and the dog not less than three, unless the bitch is four or five years old; but even then the practice is not to be recommended. Until lately it has been much the fashion to advocate the selection of very old stallion dogs as well as horses; but experience has now led most breeders to prefer a younger animal, if perfectly mature; and this I believe to be more particularly the case with the greyhound than with the horse, because the older a dog is the more tricks he learns, the more slack also he becomes, and the less likely is he to get stock possessing that fire which is the *sine quâ non* of the public runner.

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“The best time for the confluence of the sexes is when the usual term of nine days is just going off, say about the seventh day, and if possible again on the ninth, if she will then suffer the approach of the male. As soon as the bitch is able to take her usual exercise without fear of annoyance,



she should be taken out regularly, or suffered to be at large. Nothing is of so much consequence as this. You can never expect a healthy offspring from a fat, dyspeptic mother, and confinement will as surely produce disease in the dog as in the human subject. This exercise should be continued as usual up to the end of the seventh week, after which time care should be taken that the bitch is not induced to overleap or strain herself by following others in their play. It is better, therefore, to lead her in a strap, if with other dogs, or to give her her entire liberty by herself in some quiet farm-yard or cottage garden.

"It generally happens that towards the end of her time the bitch becomes very thin; she should then be better fed than before; but it is more desirable that she should be somewhat low in flesh than too fat, as this only leads to fever, and consequently to a stoppage in the secretion of her milk.

"If possible, she should have a roomy loose box, or some similar place, for her *accouchement*, and she should be separated from other dogs for the last week, for fear of injury by fighting. There should be plenty of clean straw, and if possible, a boarded floor for her to make her bed on, as the whelps are sure in sucking to scratch all the straw away, and afterwards lie on the bricks or stone. If, however, a boarded floor is not to be had, get a piece of old carpet, and put it on some litter, and then put more straw upon that, by which means you prevent the whelps from scratching away more than that lying above the carpet, and they are consequently kept dry and warm. Care should be taken that the bowels are regularly open, and, if necessary, a little castor oil should be given, with plenty of broth afterwards. As the milk begins to fill the teats some days before whelping, it is well to give more sloppy food than usual, and a portion of milk, if easily obtained, is of service, as it is highly desirable that the secretion of milk should be fully established by the time the whelps are born. To do this effectually the food should be nutritious and sloppy, but not so heating as to produce fever. In making this change regard should be had to the previous diet of the bitch. If she has been fed upon much flesh it will not do to take it away entirely and substitute milk and flour, but whatever the food has been, let your change be somewhat to a lighter, a more nutritious, and a more liquid kind. For instance, if much flesh has previously been given, then substitute good meat broth for a part of it, taking care to thicken the broth with the same kind of meal she has been accustomed to. It is astonishing how often the health of greyhounds is upset by a thoughtless

change of food, as, for instance, at the beginning of training dogs are often at once put upon a pound of flesh a day, which had previously been living upon barley meal and greaves. Instead of improving in condition, and 'training on,' no wonder that they 'train off,' and the same will apply to the time of whelping.

"There is seldom much necessity for interference with the process of parturition. The greyhound puppy is generally so small in proportion to the mother that the passage into the world is 'as easy as a glove,' and as soon as they take the nipple the whelps may be considered safe if there is plenty of milk, a warm bed, good food, and a good mother. The first three of these requirements are mainly dependent upon the kennelman; but the last depends upon the temper of the animal—some bite their puppies severely, some lie upon them, and some great awkward bitches tread upon their offspring; but these are not common casualties, and if they occur more than once are sufficient to induce us to destroy any but a very great favorite."—*Bell's Life in London*; Nov. 28, 1852.

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## CHEMICAL DISINFECTANTS.

By GEORGE WILSON, M.D., F.R.S.E.

"THE term *disinfectant*, in strictness of language, can only be applied to those agents or substances which destroy or decompose infectious or contagious matter. But it is usually employed in a wider sense, so as to include not only *disinfectants proper*, but likewise *antiseptics* and *deodorisers*. Any attempt to draw a sharp line of demarcation between these three classes of agents, is rendered impossible by our almost total ignorance of the nature of contagious matter. Some substances, such as chlorine and sulphurous acid, possess at the same time disinfectant, antiseptic, and deodorising powers. Some, like common salt, are probably simply antiseptic; of others, such as the salts of the heavy metals, which are in high repute as deodorisers, it may be questioned whether they are of any value as disinfectants, although with some persons they rank at the head of the list. Without insisting at present on this, it may suffice to define the bodies we are about to consider, thus: A disinfectant is an agent which effects the chemical decomposition of organic poisonous matter—the term poisonous being used in a wide sense to

include all the known or supposed causes of the development of disease, which are referred to under the names of miasma, malaria, infectious virus, contagious matter, &c.

“An antiseptic is an agent which prevents or arrests the development of organic poisonous (or non-poisonous) matter without effecting its chemical decomposition.

“A deodoriser is a substance which destroys odour, by decomposing or combining with, or absorbing odorous matter. Chlorine, for example, decomposes sulphuretted hydrogen, whilst a salt of lead decomposes it, and charcoal simply absorbs it.

“Before considering the relative merits of particular substances belonging to these classes, it is necessary, however, briefly to discuss the important question—does the poisonous organic matter which occasions certain diseases, occur in the solid, liquid, or gaseous form? The certainty that prolonged exposure to a vitiated atmosphere, such, for example, as that of a fever ward, produces disease, has led to a conclusion in which probably all concur, that the air is one of the chief media through which disease is propagated, and this connection has in turn led to the much more doubtful inference that infectious matter is truly gaseous or vaporous. This view has probably been strengthened by the recent extensive study of the properties of anæsthetics, and by the many observations which have been made on the rapid and powerful action on the body of substances which enter it through the lungs. It has certainly also been deepened by the opinion, widely prevalent, that the gases which are evolved from cesspools, sewers, and stagnant waters in general, particularly sulphuretted hydrogen, hydrosulphuret of ammonia, and marsh gas (light carburetted hydrogen) are the *direct* and *specific* causes of ague and fever.

“If this opinion were well founded, the limits and best modes of applying disinfectants could be determined without much difficulty, and our control over infectious diseases would certainly be much greater than it is.

“I think, however, that we may with confidence affirm that the great majority of diseases are not propagated by gaseous poisons. The recent tendency to advocate an opposite opinion, has been mainly occasioned, I believe, by an opinion expressed by the late Professor Daniell, to the effect that the fatal fever of the African coast is occasioned by sulphuretted hydrogen. This view was founded on an analysis of water brought from that coast, and determined the ventilating arrangements fitted up in the vessels which formed the dis-

astrous Niger Expedition. It appears to have been extensively adopted by medical men.

“Another disease, namely influenza, has been imputed by high chemical authorities to the diffusion through the atmosphere of a peculiar gas. Dr. Prout regarding seleniuretted hydrogen as its cause, Schœnbein attributing its production to ozone. There is no evidence that either of these views is true, but much may be said in favour of the latter. The last severe epidemic of influenza spread over Europe with a rapidity which almost seems to point to a gas as the medium of its propagation. No one, however, has detected seleniuretted hydrogen in the atmosphere; and air largely impregnated with ozone, may be breathed with an impunity which throws great difficulties in the way of Schœnbein’s hypothesis.

“Whilst thus, with the exception of influenza (if it is to be excepted), no gas is known to possess the power of developing an infectious or contagious endemic or epidemic; on the other hand, as Professor Graham has justly remarked, such infectious matters as are accessible to us; for example, ‘the matter of cow-pox may be dried in the air, and is not in the least degree volatile. Indeed, the volatility of a body implies a certain simplicity of constitution and limit to the number of atoms in its integrant particle, which true organic bodies appear not to possess. Again, the source of such bodies being at all times inconsiderable, they would, if vapours be liable to a speedy attenuation by diffusion, be so great as to render their action wholly inconceivable. It is more probable that matters of contagion are highly-organised particles of fixed matter, which may find its way to the atmosphere notwithstanding, like the pollen of flowers, and remain for a time suspended in it.’\*

“I shall refer to five of the disinfectants: 1, quicklime, including caustic potash and soda; 2, nitric acid; 3, chlorine; 4, aqua regia; 5, ozone. The value of *quicklime* and of the *caustic alkalis* as disinfectants, has certainly not been over-rated, although it may be questioned whether our sanitary authorities have been wise in trusting to lime alone as a purifier. From the careful study of the process of natural and artificial nitrification, and from the results of the application of soda-lime in organic analysis, we have learned that

\* Elements of Chemistry, p. 336.



the caustic alkalies and alkaline earths decompose organic matter with the evolution of ammonia, which by oxidation may become converted into nitric acid. Woodwork or stone-floors, to which a coating of limewash cannot be applied, requires only to be washed with caustic soda or soft soap, to obtain an effect identical with that which lime occasions.

“2. *Nitric Acid* seems latterly to have fallen into disrepute, but certainly undeservedly. It acts more rapidly on many organic compounds than chlorine does, attacking their carbon as well as their hydrogen, and as it is not required in large quantity its application is not costly.

“3. *Chlorine*.—Of chlorine, which is at present the favorite disinfectant, it is needless to speak. Its peculiar power of decomposing combinations of hydrogen gives it, in one respect, a superiority over nitric acid, which does not decompose many of the gaseous hydro-carbons; but it should not be forgotten that it is only in the presence of light that this action of chlorine is fully displayed, so that its disinfectant influence is comparatively small in the case of dark or ill-lighted apartments, such as underground cellars, the lower cabins, or the hold of a ship, which are the very places where disinfectants are often most wanted.

“4. *Aqua Regia*, as uniting the properties of nitric acid and of chlorine; each of which has peculiar virtues, the former in particular being a powerful oxidising agent, the latter possessed of great decomposing action over hydro-carbons, appears entitled to a high place among disinfectants. It can be cheaply procured by pouring oil of vitriol on a mixture of nitre and common salt, or by heating a mixture of nitric and muriatic acids.

“One of the most rapid and effectual methods of disinfecting a large empty apartment, such as an hospital ward, would be to place in one corner a vessel containing the materials for chlorine, such as oxide of manganese and hydrochloric acid, or oxide of manganese, common salt, and oil of vitriol; and in another corner, a vessel containing nitric acid and a few fragments of copper, so as to evolve nitric oxide, which would spread through the apartment and form nitrous acid there, oxidising everything oxidable which it contained, whilst the chlorine specially attacked the hydrogenous compounds. The walls might then, if necessary, be lime-washed, with a view alike to destroy any adhering organic matter which had resisted the action of the gases, and to neutralise any traces of free acid.

“5. The last of the disinfectants proper to which I refer is the singular substance ozone, which has a special interest,

as being in all probability the great natural disinfectant. Its nature is still matter of speculation. Schœnbein, its discoverer, regards it as a peculiar oxide of hydrogen; Berzelius and Faraday represent it as simply oxygen in a peculiar (or allotropic) state of modification; it has been suggested that it is an oxide of nitrogen; and quite recently M. Fremy has affirmed it to be what he calls 'electrised oxygen,' *i. e.* oxygen modified in properties by the action of electricity upon it; a view not materially differing from that of Berzelius and Faraday. There are difficulties in the way of all these views, into which it is not necessary to enter. All that concerns our present subject is that, by different processes a substance can be developed in the atmosphere which possesses remarkable disinfectant and oxidising properties. The oldest known method of producing the so-called ozone, is the exposure of air to a stream of friction or high tension electricity. Its odour may always be recognised in the neighbourhood of an electrical machine whilst at work. Another method is the galvanic decomposition of water, when the ozone accompanies the evolved oxygen. A third, and the most convenient method on the small scale, is the exposure of phosphorus in moist air. By these processes and by certain others, air is made to acquire a striking power of oxidising, bleaching, deodorising, and disinfecting. We cannot doubt that every thunder-storm develops some ozone, and other processes also probably produce it. At all events, the atmosphere frequently exhibits an oxidising and bleaching power, at other times absent, which Schœnbein, Faraday, and others, attribute to the development of ozone within it.

"The only antiseptics to which I shall refer are two. The first is sulphurous acid: it is a powerful antiseptic, for it resists thoroughly the decomposition or decay of organic matter. In reality, however, it as much resists the development as the decay of organic bodies, and thus it doubly prevents the evolution of organic poisons. Dr. Christison long ago pointed out how small a quantity of this acid is sufficient to destroy plants. In the wine countries it has been used from time immemorial to prevent the souring or acetification of the lighter wines, when kept in casks partially filled. Professor Graham, who strongly recommends it as a disinfectant, draws attention to the fact, that at Manchester the offensive effluvia of the cochineal dye-vats, which resist the action of chlorine and nitric acid, are at once destroyed by sulphurous acid. My own attention was directed to it from the employment of it on a large scale by paper-makers and others to secure the preparation of pure gelatine, a substance

peculiarly liable to enter into putrefaction. Sulphurous acid can be easily prepared by burning sulphur, or by heating oil of vitriol, along with charcoal, or vegetable matter. Its corrosive action is very slight; its disinfecting action very powerful. The sulphite of soda is now prepared in quantity at different chemical works. The addition of a stronger acid sets free the sulphurous from its salts. As to its mode of action, if we concur with Liebig in believing that morbid matters resemble ferments, in being active only whilst undergoing a decomposition which is mainly determined by the oxygen of the air, we may suppose sulphurous acid to render the poisonous matter inert, by preventing its oxidation. This acid, moreover, is a powerful deoxidising agent, and it may be by removing oxygen from organic poisons that it renders them inert, by decomposing them.

“Further, sulphurous acid can combine with certain elements of organic bodies, as we see in its temporary bleaching action on vegetable colours; and it may be thus that it neutralises morbid matters. In one or other, or all of those modes, this agent may act as a disinfectant; but, at all events, its action is very powerful, and it deserves much more attention than it has received.

“The only other substance to which I shall at present refer, is pitch oil, one of the products of the distillation of tar. It is an antiseptic of the most powerful class, and very cheap, and if not used in excess it is applicable as a deodoriser; but its own strong tarry smell interferes with its extensive use.”  
—*Pharmaceutical Journal*, December, 1852.

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## OBSERVATIONS ON THE VOLATILITY AND SOLUBILITY OF CANTHARIDIN.

BY WILLIAM PROCTER, JUN.

“CANTHARIDES have been used in Pharmacy since the days of Hippocrates. It was not till 1810, however, that the principle giving them activity was isolated by Robiquet (*Anal. de Chimie*, lxxvi, 302,) and subsequently named *Cantharidin* by Dr. Thomas Thompson. Since then various experimenters have been engaged in the chemical investigation of these flies, and in the more recent treatises they are stated to consist of *cantharidin*, *yellow fixed oil*, *green fixed oil*, *a yellow viscous substance*, *a black matter*, *ozmazone*, *uric acid*,

*acetic acid, phosphoric acid, and the phosphate of lime and magnesia.* It is proverbial among apothecaries and physicians, that the pharmaceutical preparations designed to produce vesication, vary very much in their power as prepared by different individuals, and from different samples of cantharides by the same recipes. Is this variableness of power due to the inequality of strength of the commercial drug? or are we to attribute it to the treatment employed by the Apothecary? The real importance of these queries demands an answer. To proceed properly, the investigator should examine cantharidin in a pure state, ascertain how far the statements of writers are correct, then by a series of analyses, quantitative as regards that principle, determine whether its proportion varies, and to what extent, in different specimens of cantharides of fair quality; and finally test the preparations derived from the same samples and see how far they correspond with the inferences drawn from the ascertained properties and proportions of the active principle. I have at present undertaken to resolve but a part of these queries—yet by far the most important ones—as will be seen.

“Cantharidin is a white, neutral substance, of which the formula, according to Regnault, is  $C_{10} H O_4$ . Gmelin considers it of the nature of a solid volatile oil. As usually seen, it has the form of minute flattened four-sided prisms much broken up, so as to appear like scales. When deposited from an ethereal solution of cantharides by slow evaporation, or from its solution in hot acetic acid by cooling, it assumes the form of flattened oblique four-sided prisms with dihedral summits, derived from the rectangular prism by the bevelment of its edges. The crystals by slow sublimation are four-sided rectangular prisms of great brilliance and sometimes iridescent.

“*Solubility.*—Pure cantharidin is insoluble in water hot or cold. It is slightly soluble in cold alcohol, readily so when hot. Ether dissolves it to a greater extent, yet much more easily hot than cold. Chloroform is its best solvent, cold or hot, as shown in a former essay (*Am. Jour. Pharm.*, vol. xxiii, 124,) and will remove it from the aqueous infusion of the flies. Acetic ether dissolves cantharidin, especially when hot, but does not retain much on cooling.

“*Volatility.*—At  $220^{\circ} F.$  no visible effect was produced. Kept at  $250^{\circ} F.$  for twenty minutes, a very slow sublimation commenced. At  $300^{\circ} F.$  the vaporisation was but slightly increased. The heat was then raised to  $360^{\circ} F.$ , when the sublimation became more decided, yet still slow. Between



402° F. and 410° F. it fused, and rapidly sublimed at a few degrees higher. Cantharidin at this temperature volatilizes with great ease, and condenses in beautiful well-defined crystals like salicylic acid.

“The specific gravity of cantharidin is considerable, as it sinks in nitric acid, sp. gr. 1.38; it is exceedingly acrid; its powder applied to the skin with a little oil produces speedy vesication, and taken internally it is an irritant poison of the most virulent kind.

“From these experiments it must be admitted that cantharidin is less volatile than has been asserted. The effect produced on the eye of the pupil of Robiquet who was watching the crystallisation of cantharidin during the evaporation of an ethereal solution, may be accounted for by the mechanical action of the dense ethereal vapour escaping near his eye, as he watched the process with a lens, carrying off some particles of catharidin; and the readiness with which this principle may be brought mechanically in contact with the skin of the face, during a series of experiments, by want of care, will easily account for the occasional testimony of writers in favour of its volatility at low temperatures based on that kind of evidence. During the whole of the experiments detailed in this paper, the author has not experienced any inconvenience to his eyes or face except in two instances, once when decomposing cantharides by destructive distillation, during which some of the vapours escaped near his person, and again where a small capsule containing aqueous extract of cantharides was accidentally exposed to high temperature over a lamp so as to partially decompose it; he suffered slight pain for a few hours in the conjunctiva of both eyes.

“Having now studied the effects of the ordinary solvents on cantharidin in a free state, and in the condition in which it exists in the insect, we are prepared to consider with some clearness, the pharmaceutical preparations of the Spanish fly, and their action as vesicants.

“*a.* If one thirtieth of a grain of pure cantharidin, in fine powder, be placed on the skin of the arm, and covered with a piece of warmed adhesive plaster, active vesication occurs in eight hours, with pain. If the same quantity of cantharidin be put on the other arm, a small piece of paper be laid over it, and then a piece of adhesive plaster with a circular hole in it be applied, so as to hold on the paper, no vesication occurs in sixteen hours, the powder remaining dry. If then a large piece of plaster be put over the whole,

at the end of eight hours more no blistering action will have taken place. If now a trace of olive oil be applied to the back of the paper covering the cantharidin, and the plaster replaced, speedy vesication will occur. These experiments prove that cantharidin must be in solution to have its vesicating action, and that oily matter is a proper medium.

“*b.* When powdered flies are stirred into the ordinary vehicle of resin, wax, and lard, so as to chill it almost immediately as was formerly directed, but little of the cantharidin is dissolved by the fatty matter, and when applied to the skin the process of vesication is retarded. If, however, the cerate be kept fluid for a length of time, say for half an hour, by a water-bath, or other regular heat, no loss of cantharidin occurs by the heat, the active principle is in great measure dissolved by the fat, and every part is impregnated and active. In the foregoing experiments it has been shown, that twenty parts of olive oil will dissolve one of cantharidin when hot. If we admit with Thierry that cantharides contains but four thousandths of their weight of cantharidin, the quantity contained in a pound of cerate is about *eight* grains, whilst the lard in the same weight of cerate is 1600 grains, or two hundred times the weight of that principle, not to speak of the influence of the wax and resin, which, in union with the melted lard, act as solvents. Hence the whole of the cantharidin may be dissolved by the vehicle. Another advantage of employing a continued heat in digestion is the removal of the hygrometric water from the flies, which is the source of the mouldiness to which the cerate is prone in certain conditions.

“In a former essay (*Amer. Journ. Pharm.*, vol. xiii, p. 302), I have advocated digestion in making this cerate (a recommendation also made by Mr. Donovan, of Dublin, about the same time), and also the use of a portion of the oil of turpentine to facilitate the solution of the cantharidin, but the foregoing experiments prove that fatty matter is quite as good, if not a better solvent alone, than with turpentine.

“*c.* It has been asserted long ago by Beaupoil, Robiquet, and others, that water will perfectly extract the active matter from Spanish flies, which these experiments corroborate. Hence it is easy to understand how the condensed perspiration may facilitate the action of a blister, especially when, as was formerly much the case, its surface is coated with the dust of the flies and the skin moistened.

“It is also clear why the Unguentum Cantharidis of the U. S. Pharmacopœia is active although made with a decoction of flies, yet, in this preparation, care should be observed

not to evaporate all the water, as on the existence of the aqueous extract in a soft state depends much of the efficiency of the preparation as an irritant dressing.

“*d.* In the *Linimentum Cantharidis*, U. S. Pharm., in which an ounce of flies is digested in eight fluid ounces of oil of turpentine, the cantharidin is to the menstruum as 1 to 1500, a proportion probably quite sufficient to retain it in solution. The importance of the officinal direction to digest is evident. It is quite doubtful whether this liniment, as made by the process of Dr. Jos. Hartshorne, one part of flies to three parts of oil, will retain all the cantharidin after standing awhile.

“*e.* The *Acetum Cantharidis*, (Lond. Ph.) made by macerating an ounce of flies in ten fluid ounces of acetic acid, 1·48, has been criticised by Mr. Redwood, (*Pharm. Journal*, Oct. 1841,) who arrived at the conclusion that it owed its vesicating power almost solely to the acid, he not being able to discover cantharidin in it. The inefficiency of *cold* acetic acid as a solvent for *pure* cantharidin has been proved by the above experiments, and its efficiency when hot equally shown. There can be but little doubt that the London preparation would be much improved by *digesting* the flies in the acid for an hour in a close glass vessel at the temperature of boiling water.

“*f.* The *cantharidal collodion* of M. Ilisch has been considerably used as a vesicant in this country. Ether being a good solvent for cantharidin readily keeps that principle in solution. When applied to the skin, the escape of the ether leaves a coating of ethereal extract of cantharides, admixed with collodion. This preparation sometimes fails from a deficiency of cantharidin, at other times from want of a sufficient body in the collodion excipient, and it has been found more advantageous to treat the cantharides with ether till exhausted, distil off the ether, and add the oily residue to collodion of the proper consistence. The addition of a little olive oil, and of Venice turpentine, as recommended by Mr. Rand, will give more activity to the preparation, especially if a piece of oiled silk or adhesive plaster be applied over the part.”—*American Journal of Pharmacy*.

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## THE VETERINARIAN, JANUARY 1, 1853.

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Ne quid falsi dicere audeat, ne quid veri non audeat.—CICERO.

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WHETHER Professor Simonds prove to be fortunate or unfortunate in the suggestions he has put forward in his "Introductory Address"—in our last Number—for reformation and improvement in Veterinary concerns, we may safely give the Professor the credit, beforehand, of being impelled to an undertaking (which may turn out acceptable to others or not) by no other motive save a laudable desire to benefit that profession of which he is himself so exalted a member. Since Coleman made the rapid strides he did, after St. Bel had laid the foundation stone, nothing has been done of any moment to alter the *constitution* of the Veterinary College. Its various members have been growing, of course more conspicuously in some cases than in others, in the public estimation. Since the time, indeed, when the question was raised among military authorities, and was by them made matter of official inquiry—*whether the appointment of Veterinary Surgeons to the army had been productive of good or not to the service?*—the veterinary art has greatly advanced in public favour. With such increase of popularity, the profession seemed to have attained its acme of *status* in society, when the obtainment of the CHARTER opened fresh avenues of advancement; some of which were quickly entered, whilst others presented obstacles in the way of prosecution which hitherto have resisted all attempts to overcome them. Now, however, that the melancholy differences in the profession, which were the main causes of want of successful enterprise, are found to be, in part at least, subsiding, and there appears between the two more influential parties a prospect of perfect reunion, Professor Simonds avails himself, so far, of a happy moment to bring forward



his suggestions for reform. Leaving the grand question of *professional reform* for consideration to another time, we will here, firstly, make a few cursory remarks on some pieces of advice and recommendation he has offered to veterinary practitioners in general; and secondly, on some innovations and alterations he proposes should be made at the Royal Veterinary College. Taking these in the order the Professor has classed them, viz., 1. The Profession; 2. The Institution; and 3. The Pupils, we shall commence with the first category.

In this we find resumed the frequently discussed question of the policy and respectability of having a shoeing forge at work in connection with an infirmary establishment. So far as experience—the great arbiter of questions such as this—has gone, we believe that it tells in favour of the forge: showing that, although there be—as the Professor in truth says—“many of those (veterinary surgeons) who enjoy the largest practices without forges,” there remain still more who have not relinquished their forges: the best proof they can afford of their finding it to their advantage to retain them. An old practitioner, established by reputation or standing, may perhaps be able to “do without a forge;” but that he is nowise a loser thereby, or gives no advantages to another which he might have secured to himself, is to us more than problematical. And in the case of one about to set up in practice, we confess, for our own part, our feeling is strongly in favour of a forge being one of the *sine qua nons* of the nascent business. Nor do we, we must confess, see the detraction which the Professor appears to regard as inseparably attached to the forge. In London, and we should, *cæteris paribus*, imagine in other large towns, we should certainly offend some of our veterinary acquaintance of high professional standing, were we to tell them, their forges hurt their character or reputation; indeed we should expect to be told in answer, that they had not found that their forges had done them any such injury as was alleged: added to which, that, without forges, they should find themselves not only much

inconvenienced in their practice, but something out of pocket as well. It is true enough, that, in some situations (not in all) the forge, purely as a *shoeing* factory, "brings no profit;" but if it profiteth nothing as a shoeing forge, what does it produce as a vehicle for the discovery and relief and cure of "foot cases," and some others, perhaps, incidentally, as well? The treatment of feet, hygienic as well as medical, is so inseparably bound up with the business of the forge that, in practice, they become inseparables; and he who essays to do without a forge, after having had one, and succeeds in the curtailment, will, we think, be a doubtful gainer of respectability, while, at the end of the year, he will find himself a certain loser of professional income.

In the second piece of advice the Professor gave his auditory, we most cordially concur in opinion with him. Nothing is so apt to turn out the occasion of a man losing his good name, deservedly or not, as dealing in horses; and not only losing his reputation for integrity of purpose, but perhaps of losing his friend into the bargain, should that friend, unfortunately, happen to be his customer. A veterinary surgeon desirous of selling his horse has, too often, as the Professor justly observes, "to sacrifice his professional knowledge to the love of gain, since he must either conceal defects which he knows to exist, or speak of them as things of no consequence:" two subterfuges, either of which is unworthy of a man living on pretensions to science, and desirous of maintaining the character of a gentleman in his vocation. "Either," adds the Professor, "be a horse-dealer or a veterinary surgeon: you cannot be both."

In this age of advancing science, it is not only an obstacle in the way of improvement, but it is derogatory to men professing an art grounded in the study of anatomy, physiology, pathology, chemistry, &c., to continue to make use of terms, not only unmeaning and inapplicable, but many of them no more than absolutely farriers' and grooms' jargon, and in the lowest degree vulgar. Mark for a moment such appellations as *jack*, *splint*, *groggy*, *founded*, *german*, *piper*, *roarer*, *whistler*,

and a host of others. In professional intercourse, but one excuse can be alleged for the use of such barbarisms, and that is, the absence of a complete veterinary nomenclature : this, however, it is to be hoped, will not any great while longer remain, as it has far too long already been, a bugbear to the profession.

Quitting, with these few remarks, Professor Simonds's suggestive reformatations in the practising body of the profession, we next come to those relating to the "Institution and the Pupil." The great and crying disadvantage the Royal Veterinary College, as a school, has for years, we might say from its institutionalmost, laboured under, is the scanty opportunities for practice it affords its pupils. The pupils themselves, not without cause, complain of this ; while, as will be seen from the Professor's "Address," the evil is to the full admitted within the institution itself. Without wasting words on deploring a want acknowledged and felt by all, let us come home to the point at once in question—how is the evil complained of to be remedied ? The Professor proposes to follow the example of the Continental, and, we believe, of the Edinburgh School, in admitting into the College for advice and treatment, without charge, the horses of the poorer classes, the same as is done for human patients in our public medical dispensaries, which the pupils, under the eyes of the professors, may administer medicine to and operate on ; and that *cattle* also be admitted on the same terms, "but without reference to the position in society of their respective owners." Of course these are to be *out-patients*: not *in-patients*, unless *paid for* as such.

Standing as the Veterinary College does, out of the focus of the business of the metropolis, the chief drawback upon an influx of patients upon any terms is, and always has been, the *distance* they have to travel to the institution ; a distance inconvenient, on occasions, in cases of lameness ; and one inadvisable or altogether impossible to be encountered in cases of sickness. By way of obviating this inconvenience, Professor Simonds suggests the establishment of a "central or west-end branch,—a *reception room*, so to speak,—for

patients *there*, with a view to removal to its hospital *here*." Could not something be effected, isolated as the College stands, by means of a *caravan*, such as racers are travelled about the country in, to be kept at the institution in readiness to transport, whenever called for, sick or lame horses from any part of London, or even from some certain distance around the metropolis, to the College? The cost of maintaining such a means of transport would not be great, while the convenience of it would be likely to please many of the subscribers to, and friends of, the institution, who would prefer having their horses and cattle treated at the College to sending them elsewhere.

Reflecting on some melancholy instances of pupils who have been known to enter, and managed to "pass" through the College, with an education which has hardly enabled them to "write an ordinary note of business, or spell the most common words correctly," we are glad to see Professor Simonds suggesting the following of an example which has been set by both the Company of Apothecaries and the Royal College of Surgeons. Both these medical bodies have instituted preliminary examinations, of a high scholastic but non-medical nature; though the latter has made this regulation compulsory only upon their "Fellows," not requiring it, as yet, of ordinary "Members." Our readers will remember that we published, in our number for October, 1852, (vol. xxv, p. 576, et sequent.) similar conditions on which pupils were admitted to veterinary schools in France. Whether it would be politic or advisable to enforce equally advanced requirements of the veterinary pupil of our own country, might become matter for consideration. That *some* scholastic qualification should be called for, we are quite of Professor Simonds's opinion.

And this appears the more manifest, when we come to read, following this suggestion, another, having for its object an extension of the present College education of the pupil. This, it is proposed, should be effected through the addition of a short *summer* course of study to a long winter course; there being, in such additional course, taught practical



chemistry and botany, veterinary jurisprudence, and the principles of surgery, with microscopic and comparative anatomy. It cannot be imagined that an *educationless* person can pretend to the study of such subjects as these, with a prospect of making any notable or useful progress in them, even supposing he be able to properly understand them.

These, with some minor points, constitute the suggestions of the Professor bearing on reform in the various departments he has taken into his consideration. One more—perhaps the most important—subject remains still untouched: we mean the existing relationship between the veterinary profession, since it has become a chartered body, and the Royal Veterinary College—in what respect such relationship might be improved, and thereby rendered not only more congenial to the parties themselves, but more beneficial to the professional body at large, as one undivided whole. On this part of the inquiry, however, we shall reserve what we may have to say until next month.

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WE beg to direct the attention of our readers to the subjoined list of questions, which has just been issued and circulated by a Committee of the Epidemiological Society, formed for the purpose of investigating diseases of the epidemic class among domesticated animals.

It will be seen that the Committee intends, and wisely, in our opinion, to commence its labours, by inquiring into the *causes* of the extension and fatality of the malady among cattle, familiarly known as *pleuro-pneumonia*. As the value of the information thus obtained must in a great measure depend on the number and nature of the answers returned, and as some of our readers, who may be willing to assist in this important inquiry, may not have received a copy of the questions hereunto annexed, we are enabled to state that lists will be immediately forwarded to them on application to either the chairman or the secretary, *pro tem.*, of the committee. We will add, we look forward with much interest to the production of the report on this subject; meanwhile, we

must cordially subscribe to the course adopted to collect materials for it. To show by whom the present inquiry is being conducted, and thereby to give our readers some idea of the existing prospects of success in this interesting research, we subjoin the names of the committee, together with a copy of the letter which has been addressed by them to every quarter whence they are likely to glean information.

## EPIDEMIOLOGICAL SOCIETY.

### EPIZOOTIC COMMITTEE.

*Chairman.*—PROFESSOR J. B. SIMONDS, Royal Veterinary College.

*Hon. Secretary, pro. tem.*—E. N. GABRIEL Esq., Rolls Buildings, Chancery Lane.

#### *Members.*

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 WELLS, T. Esq., V.S.  
 WILKINSON, J., Esq., V.S.

31, George Street, Hanover Square.

DEAR SIR,—The Committee of this Society, which is now engaged in investigating EPIZOOTIC DISEASES among animals, is desirous of obtaining information, in the first instance, on the affection known as pleuro-pneumonia.

It will be in your power to render the Committee most valuable assistance, if you will kindly furnish answers to any or all of the following questions; and we beg to assure you, that the information you thus afford will not only be most thankfully received, but will be carefully acknowledged in the Report which it is the intention of the Society to publish.

We are, dear Sir,

Your's truly,

B. G. BABINGTON,  
*President of the Society.*

JAMES B. SIMONDS,  
*Chairman of the Committee.*

1. Has the disease termed Pleuro-pneumonia existed either among your own cattle, or among any which are under your immediate observation?

2. Has it prevailed in your neighbourhood, and, if so, how near to your own premises?

3. Did the disease *first* appear among the "old stock" of the farm, or among the animals which had been recently purchased?

4. Has it attacked any other varieties of animals besides oxen?

5. What is the usual health of the animals kept on the farm, their average age and condition?

6. What number of cattle are kept by you, and how many have been attacked by the disease?

7. Were the breeding or the fatting stock *first* affected?

8. Can its appearance in your locality be traced to any special or direct cause, such as the introduction of diseased animals?

9. To what do you attribute its outbreak in your own herd?

10. Have the cows, either in calf or in milk, been more susceptible to the disease than the oxen?

11. Have you any proofs of calves being affected at birth, or *very* shortly afterwards?

12. What was the state of the weather at the time of the outbreak, and were the animals, when attacked, exposed to, or protected from, its influence?

13. Is it your opinion that the malady is contagious, and, if so, what proofs have you?

14. How long a time has usually elapsed between exposure to infection and the appearance of the disease?

15. Were the losses quickly replaced by new purchases?

16. Did such newly-purchased animals have free communication or not with those that had been previously living with the diseased, and, if so, for what period of time?

17. Have these animals been the subject of the disease?

18. Is the malady on the increase or otherwise?

19. What are the symptoms marking the commencement of the attack, and are they easily recognised or not?

20. What are the symptoms that accompany the progress of the disease, particularly those that indicate the greatest danger?

21. Have any animals recovered in whom diarrhœa has shown itself in an advanced stage of the malady?

22. What number of the cattle have died, and what proportion have been killed, or otherwise disposed of?

23. What are the usual *post mortem* appearances: is effusion of serous fluid into the chest usually present?

24. In how many cases were both lungs diseased; in how

many was the right lung alone affected; and in how many the left alone?

25. In what state or condition has the disease left those animals that have recovered from mild or severe attacks?

26. Has it seemed to have any effect in producing abortion?

27. Do you know of any instances in which an animal has become a second time attacked with a mitigated form or otherwise of the disease?

28. What are the causes which you have found to be the chief obstacles to the eradication of the malady?

29. How long is it since the first case occurred in your herd, and how long since the last case?

30. Has the disease steadily progressed, or have there been repeated outbreaks after intervals of freedom from disease?

31. Has prevention been attempted by change of diet, situation, or management—by medical treatment, or any other means?

32. What results have followed the adoption of the preventives employed?

33. Is the general character of the district in which you reside flat or hilly, dry or damp, wooded or open?

34. Are the pasture grounds free from stagnant waters and bogs, and is land drainage generally adopted?

35. Is irrigation of the pasture grounds carried out to any extent?

36. Are the cattle sheds well drained and ventilated?

37. Is the system of “box feeding” adopted either upon accumulating manure, or upon boarded floors placed over pits for the reception of the dung and urine?

38. Did any blight, mildew, or similar affection manifest itself amongst your corn, or other crops, previous to or about the time that your cattle became diseased?

39. Have any epidemic diseases prevailed among the people in your locality, either shortly before, or during the appearance of the malady in question?

40. Does any other epizootic affection besides the one which forms the special subject of this inquiry, exist among domesticated animals in your district? If so, state, 1st, what animals are affected? 2dly, the leading characters of the disease; and 3dly, the per centage of death it produces?

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ERRATUM.

At page 3 of the present Number, *for* JOHN TEKYL, *read* JOHN JEKYLL.



THE  
VETERINARIAN.

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VOL. XXVI,  
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ALOES AND GENTIAN.

*To the Editor of 'The Veterinarian.'*

DEAR SIR,—I have great pleasure in forwarding to you the result of a month's experience on the effect of a combination of Gentian and Aloes for a purgative, as brought to your notice by my friend Hurford of H.M. 15th Hussars, the result of which, as far as it goes, will speak for itself. Since Mr. Hurford left this for England, I have had charge of his department in the regiment, as well as my own in the Head Quarters, Horse Artillery, and, as you will perceive, have generally given to some of my patients the drugs combined, and to others the Aloes solus. If you will suggest any further arrangement, I will willingly put it to the test, and send you the result. I have avoided all cases where emergency of symptoms prevailed, and taken those only for experiment where a purgative would be beneficial, and the absence of the effect of no great consequence; for I would observe that every case was mild, and that the number of mange cases has arisen from precautionary measures during the monsoon, when, if neglected, they become sad troubles. I am almost ashamed I have not before proffered an item or two for 'THE VETERINARIAN,' but hope to do better shortly.

Believe me,

Yours very truly,

J. WESTERN, H.B. M.R.C.V.S.

Hon. E. I. C. Service.

BANGALORE; Oct. 9, 1852.

*H. M. 15th Hussars, September, 1852.*

Date of Admission.	Troops and Number.	Cause of Admission.	Medicine, when given.	Quantity of each.	Whether or not Purged.
Sept. 1	C 1526	Lame	Sept. 2	3 drs. each	Not purged
" "	B 1696	Eruptions	" "	" "	Slightly
" "	*Col. Pratt's	Lame	" "	" "	Not
" "	†Maj. Dudgeon	Lame	" "	" "	"
" 3	H 1425	Lame	" 4	" aloes	"
" "	H 736	Lame	" "	" each	"
" "	H 1312	Off feed	" "	" "	"
" 4	G 1217	Mange	" 7	" "	"
" 5	G 1670	Ulcer	" "	" aloes	"
" "	C 1261	Rope cut	" "	" each	"
" "	G 1669	Cut lip	" "	" "	"
" "	C 1628	Sore withers	" "	" aloes	"
" 6	F 1676	Lame	" 9	3½ drs. each	"
" 7	E 1596	Hæmaturia	" "	" "	1 motion at 12 A.M.
" "	‡Lt. Price's	Lame	" "	" aloes	Not

*E. I. C. Troop, Horse Artillery.*

Sept. 10	§Capt. Cotter's	Eruptions: violently griped at 4 P.M.	Sept. 12	3½ drs. each	—
" "	E 82	Off feed	Sept. 12	3½ drs. each	Well purged
" "	E Staff Horse	Rope cut	" "	" aloes	Purged

*H. M. 15th Hussars.*

Sept. 10	F 1278	Lame	Sept. 12	3½ drs. each	Not
" 12	E 1515	Foul fæces	" 13	" aloes	Slightly
" "	E 1375	Eruptions	" "	" "	"
" "	E 1433	Mange	" "	" each	Not
" "	G 1669	Cut lip	" "	" "	"
" "	‡Lt. Stuart's pony	Lame	" 15	" "	Purged
" "	‡Lt. Greetham's	Cough	" "	" "	Not
" 13	H 422	Lame	" "	" "	"
" "	E 1571	Lame	" "	" "	"
" "	F 867	Lame	" "	" "	Purged
" "	G 1527	Mange	" "	" "	"
" "	C 1414	Lame	" "	" aloes	"
" "	D 1378	Lame	" "	" "	Not
" "	D 692	Lame	" "	" "	"
" "	*Col. Pratt's	Lame	" "	" "	Purged
" 15	C 551	Lame	" 17	" each	"
" "	E 1326	Cough	" "	" "	Not
" "	H 736	Lame	" "	" "	"
" "	H 1377	Lame	" "	" aloes	"
" "	F 1201	Lame	" "	" "	"
" "	D 1561	Lame	" "	" "	Purged

*E. I. C. Troop, Horse Artillery.*

Sept. 15	Drill Bay	Lame	Sept. 18	3½ drs. each	Not
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\* Col. Pratt, Adjt.-General Queen's Troops.

† Major Dudgeon, 44th N.I.

‡ Lts. Price, Stuart, and Greetham, H. M. 15th Hussars.

§ Capt. Cotter, Royal Artillery.

*H. M. 15th Hussars.*

Date of Admission.	Troops and Number.	Cause of Admission.	Medicine, when given.	Quantity of each.	Whether or not Purged.
Sept. 18	F 1614	Ulcer	Sept. 21	4 drs. aloes	Not purged.
" "	E 536	Lame	" "	" "	"
" "	A 1686	Lame	" "	" "	"
" "	G 1701	Bite wound	" "	" each	"
" "	G 1389	Bite wound	" "	" "	"
" 21	B 1613	Lame	" 23	5 drs. aloes	Purged
" 22	F 1620	Lame	" "	" "	"

*E. I. C. Troop Horse Artillery.*

Sept. 23	E 42	Sore withers	Sept. 25	5 drs. aloes	Purged
" "	E 71	Bruised sole	" "	" "	"

*H. M. 15th Hussars.*

Sept. 24	G 1512	Lame	Sept. 26	5 drs. aloes	Purged
" "	H 736	Lame	" "	" "	"
" "	Lord Compton's	Lame	" "	" "	Slightly
" "	E 1392	Catarrh	" "	4½ drs. each	Purged
" "	E 1596	Wound	" "	" "	Slightly
" "	D 1602	Eruptions	" "	" "	Purged
" 27	A 1244	Overreach	" 29	5 drs. aloes	"
" "	B 1660	Ulcer on tail	" "	" "	"

## ABSTRACT.

9 horses had	3 drachms each of Aloes and Gentian	.	.	1 purged
17 "	3½ " " "	.	.	6 "
2 "	4 " " "	.	.	none purged
3 "	3 " of Aloes only	.	.	" "
11 "	3½ " " "	.	.	6 purged
3 "	4 " " "	.	.	none purged
3 "	4½ " of Aloes and Gentian each	.	.	all purged
9 "	5 " of Aloes only	.	.	"

Ergo 4½ drachms of Gentian is equal to ½ a drachm of Aloes, 5 drachms being the ordinary dose.

J. WESTERN, V.S. Horse Artillery ;  
In Veterinary charge H. M. 15th Hussars.

BANGALORE;  
October 8, 1852.

\*.\* The above account has evidently been kept with great care and attention ; we can confirm it so far as our own trials have gone. Of 12 horses to whom we gave Aloes with Gentian, in doses of ʒiij each, 5 only purged ; and of 12 others to whom was given the same dose of Aloes *without* Gentian, 3 purged ; of the former, in 2 the ball took no effect ; of the latter, in 4 it had no effect. This tells in favour of the Gen-

tian; but not sufficiently so to trust to it in cases wherein decided catharsis is required. Mr. Henderson's cases, (to be found in vol. XXV of 'THE VETERINARIAN,') come much to the same point. We may therefore, we think, pretty safely come to the conclusion, that Gentian tends to assist Aloes in its cathartic action, but not sufficiently so to enable us to dispense with *half* the weight of the former. Mr. Goodwin says he has long known Gentian to be a laxative. (Ed. 'VET.')

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## DISTRICT VETERINARY SURGEONS.

By J. T. HODGSON.

I hired a house near Altona, the owner of which happened to be the district veterinary surgeon. A few days afterwards, I observed a farcied and glandered horse tied up in the dung-heap. The owner of the horse came with the veterinary surgeon—he examined the horse, gave the owner a few pieces of silver coin, and he went away. The slaughterer then came and killed the horse in the veterinary surgeon's presence, and took the carcase away.

The veterinary surgeon told me he had a small pension for this office; he would not tell me how much, how he was paid, or whether he kept a debtor and creditor account for the government. The skins were sold by him to the tanner, I afterwards learned; and also that, although the office was held by what they called a regulation veterinary surgeon, it was considered derogatory, (which I believe to be the reason he was not inclined to answer my questions, knowing that I belonged to the same profession,) as he was spoken of as the shinder.\* He was one of the detective police, and of his absolute power I had proof, in the fact that it was his duty to attend the horse-market in the neighbourhood, and seize the glandered horses exposed for sale. The owner of the horse above mentioned, knowing the law, had voluntarily brought the animal,—but the veterinary surgeon I saw could stop a farmer's waggon, tell the owner to alight, and bring

\* The shinder is the man paid in cities to remove other nuisances, as dead animals, or even living dogs, if his man do not like their appearance, and this without respect to persons. One of Her Majesty's Ambassadors had his dog taken by the shinder's man. You have to keep a sharp look out, or you may see the head of your £20 pointer on a stick among a dozen others, whether rabid or not. A man is justified in killing a mad dog. Why not a glandered horse? It has been proved, although the cases are rare, human beings run risk of an equally horrible death.



his glandered horse along with him, leaving his wife to watch, in the road, her market articles: for this day, at least, unmarketable.\* Now you know

“John Bull is a jolly old fellow,  
As fat as a Smithfield prize pig,  
Fares well, drinks, smokes, and gets mellow,  
Nor cares about Tory or Whig.”

It appears by our legislative measures, that John only fears foreign contagion in his extremities. During the first visitation of the cholera, vessels from Newcastle were put under quarantine in the Thames, while the mails, from the same place, carried passengers through the country. Veterinary surgeons watch with jealous eyes, at out-ports, for free-trade-diseased foreign cattle, as if it were useless to turn their eyes inwards, and that there were no diseased cattle in Her Majesty's dominions. In ‘THE VETERINARIAN,’ for Oct. 1850, p. 584, we find that as “Old Erin may harbour no venomous thing,” pleuro-pneumonia was transported across the channel in 1841. Well, having discovered this, any one would suppose that effectual means could have been adopted to stop† the footsteps of Irish droves, and the ruinous con-

\* Had this been Mrs. Bull she would have roared out lustily—

Oh! John, my butter and eggs;  
What shall I do with my fowls?  
Rheumatics I'll get in my legs;  
Of such law makers—the owls!  
You see, I am shamefully sarved,  
By detective Weterinotomy,  
My glandered colt sent to be carved;  
Of the dam he would make an anatomy.  
Oh, for a Habeas Corpus!  
Your cart, say is made my prison—  
Like one—detective has caught us,  
Wot prigs, wot isn't his o'n.  
When my body you have again got,  
Bring an action for profit and loss,  
Of money I would have a lot,  
If its only for making me cross.  
Germanic wife may take it coolly,  
But blow me tight if I do,  
English law, or I'll be unruly,  
I will not have aught that is new.

† In Germany the footsteps of a diseased drove are soon stopped by the district veterinary surgeon. (*Vide* Importation of Foreign Cattle, ‘VETERINARIAN,’ 1849.) No one in Germany would think of going near a village to purchase cattle or sheep, that the district veterinary surgeon had pronounced diseased. In England, however, the law is very different, any one may purchase disease and distribute it all over the country. The very heavy losses that have frequently happened on the Continent makes them more careful in this respect. “But the question is, whether this object can be attained without too wide a departure from those municipal laws and rights which every country cherishes as its own peculiar system.”

sequences there stated. Not so; the arbitrary law applied to free-trade foreign cattle, was not, it seems, applicable against diseased Irish droves. Again, I lately saw in an omnibus a thin horse discharging at the near nostril. Now, only fancy it had been my duty (though I have no desire to be a shinder), to have examined the said horse, and, having found him glandered, I had directed the driver to descend and take the horse out; the conductor saying, "Ladies and gentlemen, the wetinary has brought the 'bus to a fix, and you must get out."—*Daughter*. "What's that, mamma?" *Mother*. "Only the horse doctor, my dear." *Daughter*. "Let us run away, mamma." Then to hear the male passengers alight with voices none of the sweetest. They would have their pennyworth without such interruption, not considering anything else.

The Habeas Corpus Act does not include John Bull's horse; but in the *Times*' leader, June 14, 1852, you will find the following:—

"But the liberty of the subject and the rights of the meanest criminals are so protected by British procedure, that it is impossible to import into this country the arbitrary preventive measures of the foreign criminal police, without applying to the persons who are the objects of it a form of law very much at variance with our own." Such is the language held against giving up the contagion of foreign criminals, much more John Bull's own glandered horse. It is evident we must run the risk of contamination of both, rather than bate one form of law. Mr. Brown's proposition, in your Journal for September, p. 503, is very good, standing as it does alone; but, as stated in the same leader, that too "would raise innumerable points of law of the most delicate character."

You will never see John Bull giving up purchase-money to the complainant, by order of his worship, because he will never have such power. There are a host of lawyers in the new parliament, who would overwhelm with eloquence agricultural members making propositions contrary to English law; or to make it felony to buy and sell glandered horses, which a man might unknowingly do, as Mr. Martin did this himself; and, upon reflection, would he have liked to have been subjected to such a law for having bought the said mare? That he has very praiseworthy diminished, for a time, this traffic, wherever the result of the trial may be known, may be readily conceded; but what preventive measures should be adopted remains to be considered by those better acquainted with English law than those who write in 'THE

VETERINARIAN.' Here alone lies the difficulty: practically I know there is none in going at once for the glandered horse, if it is made law. It is the only effectual way of preventing contagion. What is the use of only interfering when it becomes a money affair? leaving owners of glandered horses to work them. If, as the *Times* says it is, "*impossible*," there is an end of the matter; but the arbitrary preventive measure is not against persons, but only shortening the misery of unfortunate horses that must die of the disease.

Investing one or more members of the Royal Veterinary College, in each county, with power to seize and slaughter glandered horses wherever found, is all that is requisite to bring in a Bill for, and leave the rest to Parliament.

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#### A FEW OBSERVATIONS ON ADMINISTERING NARCOTICS TO HORSES.

BY J. T. HODGSON.

It must be understood, that the nations of India do not give boluses to horses; they either administer medicines in food, or by means of a drench bamboo. The first is done by boiling pulse (usually moot gram) to pulp; a portion is put into a wooden bowl, into which is stirred the masaulahs cordials, or narcotics. The native groom stands with the horse's head, as if resting on his shoulder, and with his hands on each side the horse's mouth, into which he crams a portion of this prepared medicated food; the animal being a long time swallowing the narcotic substances, (whether bang or opium alone, or combined with other ingredients,) are acting on the brain through the medium of the nerves of the mouth, fauces, &c. as well as on the stomach by that portion which enters it; and this, I believe, to have more effect than a drench. As to a bolus of such substances, it passes down into the stomach, where it remains undissolved for hours; and then the nervous surface to which it is applied is limited as far as regards immediate action on the brain. I could only account in this way for the apparent stupefaction occasionally seen in dealers' horses in India. Horses pampered and fed by them in this manner are like so many prize-fed animals, the appearance of which are familiar to most readers of 'THE VETERINARIAN.' These horses all dung like oxen or pigs; and, to counteract this tendency from the high feeding on

boiled grain, sugar, and masaulah, the dealers throw down dry stalks of kirleg, of bajeraor joowar, the seeds of which are known under the name of millet. (The official names I cannot now remember.)

I have known dealers not satisfied with green barley alone, but also cram the horse as before stated. The natives of India are acknowledged to rival the European dealers in the fattened state and condition of their animals, whether horses or oxen.

### THE NEW HORSE.

FEW things afford the man who keeps horses more pleasure, for the time being, than a fresh-purchased steed. Coming either from the yard of a dealer, who declares he never sold a faulty horse; or from the hand of an auctioneer, who asseverates he never knocked down any other but a good horse; or, with more assurance still, from the stable of a friend, who most friendlily has taken care to paint so vividly all the animal's good qualities, that the bad ones are either thrown into the shade, or else forgotten to be mentioned; the "new" horse arrives in the stable of his new master with all the perfections of an Eclipse upon his head, or, at all events, with the brightest prospects of fulfilling the purposes for which he has been specifically purchased. Every visitor to the house of his fresh master must come and see "my new horse;" "Is'nt he a famous shaped one? See, what *legs* he has!—What a *head*!—What a *girth*!—What a *bread-basket* to kick against! He is as strong as Hercules; and, as for his durability, he will surely last *my* time, so that I shall never want another horse."

Such is the pleasing side of the picture—the gilt upon the gingerbread—thin enough, perhaps, to be seen through at the first trial by a real "judge" of such matters; too thin, probably, to conceal for any great length of time even from the blind or too partial eye of his master, the failings, one or many, from which this new-purchased prodigy cannot, in the course of nature, be expected to be exempt, and of which, in all human probability, he is in possession of a very fair share. The axiom—

"Nemo nascitur sine vitiiis,"

is as applicable to horses as to men. Who ever saw a *perfect* horse? Many a man may imagine he has such a horse, and



live happy in such imagination, until some *kind* friend shall dispel his vision of happiness by pointing out to him the imperfections of his favorite.

Setting aside his warranty of being "sound, and quiet to ride and drive" (which for the sake of argument we will say shall turn out a true one), the new horse may stumble, may shy, may prove so obstinately *steady* as to require all the whips in the parish to whip him along; or else so hot and irritable in his temper as to torment his rider or driver all but into fits, and everytime he is used create pain instead of pleasure. In fine, he may have twenty vices, and yet, according to the letter of the law, be accounted "sound, and quiet to ride and drive." Prizes in horse-dealing are almost as scarce as prizes in a lottery. Horse-buying, with the most skilful and circumspect of us, is after all neither more nor less than a lottery in which the blanks far exceed the number of the prizes. It is not, in the nature of things, possible for any person to possess himself of a knowledge of "what a horse is," until he has got that horse absolutely into his own stable, and has for some time and in different ways made use of it himself. He may ascertain that the animal is sound, and in some considerable degree satisfy himself of its quiet disposition and aptitude for the purposes he requires it; but, after all, there are vices and faults which will escape the utmost vigilance of the purchaser, and only show themselves after one, two, three, or more days' or even weeks' possession. I knew one person who bought "a very nice horse" at the hammer—it was everything to appearance he could either want or desire: at length, after having it in his possession for some short time, he discovered it had two faults: one was that, reluctantly as it quitted home, it turned quite frantic on its return: after any journey, the moment it came to any well-known road on its return, it would, if restrained from hurrying homeward at the top of its pace, turn restive. The other fault was, a habit of casting itself in its stall, night after night, disturbing and alarming persons whose sleeping-rooms were over its stable, and endangering its own life by the manner in which it occasionally got its limbs entangled and twisted within its halter. Another person bought a very fine mare of a dealer, exceedingly well-bred, and a capital huntress; she, however, proved to have one unfortunate propensity, and that was to tear all the clothes off her back; and afterwards tear her skin as well, the moment she felt the heat of blood naturally created by getting into condition.

All this shows what a hazard people run of getting their ends served who seek after advertised horses. On one occa-

sion, I was requested by a particular friend of mine to go and look at a horse for him, advertised as “a capital hackney,” with the usual *ad captandum et cæteras*, standing in a mews near Russell Square. My reply to the request was that I should comply with much pleasure; but that from my experience in such matters, my counsel was to have nothing to do with advertised horses. I went. I found the stable with some difficulty; but it proved so dark, I could scarcely see whether any horse was within it or not. After considerable hesitation, amounting almost to refusal, on the part of the man, to bring the horse out into daylight, I found the horse lame, besides being imperfect in his vision. I wrote to my friend stating such particulars, who then agreed with me that “all was not gold that glitters” in the public papers; but, on the contrary, that the majority of such advertisements were impositions.

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### MEMORANDA OF SHOEING.

*The Number of Shoes to be made for a Day's work by Two Men; the Number to be put on for a Day's work, and likewise the Number of Removes and Leather Soles.*

Making

5 dozen of saddle-horse shoes is a day's work for 2 men.

5 „ coach-horse „ „ 3 men.

4 „ cart-horse „ „ 3 men.

32 shoes put on is a day's work for 2 men.

48 „ „ „ 3 men.

20 shoes removed is a day's work for 1 man.

40 „ „ „ 2 men.

16 leather soles are a day's work for 1 man; they are charged the same as new shoes.

---

	£	s.	d.
The foreman has per week . . .	1	7	0
Three quarters of a day overtime . . .	0	3	4½
	1	10	4½
The door-man's wages per week £1 1s. 0d.			
Overtime three quarters of a			
day at 3s. 6d. per day . . .	0	2	7½
	1	3	7½
The amount of the two men's wages			
for the week and ¾ths of a day over	2	14	0

The following rule will show how a week's work is made out for two men :

	New Shoes put on.	Removes.	Leather.	Doz. made.
Monday . . .	22	9	4	1
Tuesday . . .	24	2	6	$1\frac{1}{2}$
Wednesday . .	28	10	0	$1\frac{1}{2}$
Thursday . .	22	4	2	$\frac{1}{2}$
Friday . . . .	30	0	0	$\frac{1}{2}$
Saturday . . .	18	5	4	0
<hr/>				
Put on in the week	144	30	16	5
A day's work, 32.		$4\frac{1}{2}$ days, new shoes, 128.		
Half a day, 16.		$\frac{3}{4}$ ths of a day of removes.		
		$\frac{1}{2}$ a day, leather soles.		
		1 day making.		

$\overline{6\frac{3}{4}}$

The above quantity of work amounts to six days and three quarters, so that the two men have done three quarters of a day overtime.

*A MEMORANDUM showing the cost of Five Dozen of Shoes making and putting on by Two Men, one having 27s. and the other 21s. per week.*

Two men making 5 dozen of shoes, a day's work :	£	s.	d.
cost making . . . . .	0	8	0
Putting on, $1\frac{3}{4}$ and $\frac{1}{8}$ th of a day's work, amounts to . . . . . for 2 men	0	15	0
Nails for 15 sets of shoes will require 480 : cost .	0	2	9
Cost of 32 lb. of new iron for $2\frac{1}{2}$ dozen of fore shoes	0	3	3
Cost of 32 lb. of old shoes for $2\frac{1}{2}$ dozen of hind „	0	1	0
Cost of 2 bushels of coal to make and fit out for putting on . . . . .	0	1	6
One good rasp should last to put on 100 shoes .	0	1	0
Rent of premises, wear and tear of rasps and tools of different descriptions, cost me per week, if not more . . . . .	0	10	0
	<hr/>		
	2	2	6

If double-hammered for coach horses, s. d.		
they will cost making the 5 dozen	3	6 more
The weight of new iron for $2\frac{1}{2}$ dozen of fore shoes will be 48 pounds =	1	6 „
Old iron for $2\frac{1}{2}$ dozen of hind shoes will require 52 pounds . =	0	6 „
	<hr/>	
	5	6

15 sets of shoes charged to Mr.	£	s.	d.
Dyson, at 3s. per set, amount to	2	5	0
Cash to the master smith . . .	2	2	6

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0 2 6 for master.

If the horses require double-hammered shoes the smith loses money by every set.

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### DISEASE OF THE PENIS.

BY GEORGE LEWIS, V.S. Monmouth.

SIR,—Although the following case presents nothing new in Veterinary Surgery, I beg to forward it to you, thinking that perhaps you may deem it worthy of insertion in your Journal.

In the early part of December last I was shown a cart-horse, the property of a farmer in this neighbourhood, who had a cancerous glans penis, involving the prepuce, which was enormously enlarged and ulcerated. The disease had existed about two years. The animal urinated with difficulty, and the urine was spread in all directions, as through an enormous rose of a watering pot. Of course, I advised an operation, which the owner assented to, and which I performed on the 23d ult. After having cast and properly secured him, and washed the parts with Sol. Chlorid. Calc., to destroy the fætor, which was intolerable, I made a circular incision through the prepuce; after which I drew out the penis, and having secured it with a ligature, I proceeded to amputate, and in my course to look after the vessels for the purpose of securing them by ligature, but none made their appearance, not even after the removal of the ligature; in fact, I believe that the horse did not lose  $\frac{3}{4}$ iv of blood, although neither ligature nor cautery was applied. I was relating the circumstance to an eminent surgeon (under whose tuition I formerly was), and he informed me that he had witnessed similar occurrences in the human subject, among the larger vessels, when amputating; viz.—the retraction being so forcible as to render ligatures needless, and, as in my case, without contusion or apparent cause. Immediately upon being released from the nobbles, the animal urinated freely, and is now doing well.



## REVIEW.

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Quid sit pulchrum, quid turpe, quid utile, quid non.—HOR.

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STABLE PRACTICE; OR, HINTS ON TRAINING FOR THE TURF, THE CHASE, AND THE ROAD; WITH OBSERVATIONS ADDRESSED TO ALL WHO ARE CONCERNED IN RACING, STEEPLE-CHASING, AND FOX-HUNTING. By CECIL, Author of 'The Stud Farm.' Small 8vo, pp. 240. London; *Longman & Co.* 1852.

IN a sporting country like ours, there are but few keepers of studs, or indeed riders of horses, who are not, at one time or other of their lives, "concerned in racing, steeple-chasing, or fox-hunting;" least of all would we exclude Veterinarians from this large class of its inhabitants. Not that we would have veterinary surgeons employing their time in training, or in breaking their necks in steeple-chasing; but that we would gladly see them foremost in the gallant fox-chase, and withal, well acquainted with everything tending to put a horse into the highest condition to run a race or a chace with impunity to himself and satisfaction to his master. Whatever be the nature of the inquiry, providing the horse be the object of it, the Veterinarian appears to have a sort of legitimate claim, if indeed that claim do not amount to a call of duty, to interest himself in it. There can hardly be limits to his equine knowledge, indirect or collateral though it be; since, he may depend upon it, when he shall come into practice, he will find himself estimated by his employers in some such ratio as his knowledge proves extensive and his experience general. A little stable talk, for example, oftentimes leads a client to give his horse-doctor credit for being "a clever fellow," when, in point of fact, as a professional man, he may happen to be the very reverse. These are reasons—to say nothing about them as sources of wiling away an hour pleasantly now and then—why sporting subjects should not be cast aside by us; and the same

reasons will apply, why we, Veterinarians, in the present instance, should be desirous of exploring the little work now before us. The subjoined passages from the "Preface" will show its object:—

"The object of this work is to point out the best means to render the horse fit for actual service of every kind. The mysteries which formerly enshrouded the stable have long been laid bare. \* \* Any person who is fond of horses, endowed with moderate assiduity, observation, and judgment, may direct the management of a few race-horses," &c.

Chapter I treats of "Stables." On their necessity (in this country) as being inferrible from the natural habits of the horse, we do not quite fall in with our author's views. He says—

"By viewing the habits of the horse in a state of nature, we might be led to the conclusion that, when domesticated, he would require no buildings of any kind for his accommodation: experience, however, teaches us that he must be sheltered from the vicissitudes of this climate, and above all, that the stables which he inhabits imperatively require the most scrupulous nicety of arrangement, if the utmost amount of his powers is to be made subservient to our use"

Referring back to the history of the horse—recollecting what was the origin of our best stock in this country—we certainly should be rather led to the conclusion that he would require a house to shield him, at certain seasons in particular, from the inclemencies and vicissitudes of our northern sea-girt islands. He is, in his high-bred state, an exotic, calling for all the care and artificial treatment of a green-house plant; and is, if we may use the expression, made by *culture* what he *in condition* appears. And therefore stables, like our own habitations, are better when they stand upon a dry or drained soil, and have genial aspects. And as "boxes" are now-a-days constructed, with communications of some sort one with another, we think with our author, that there is a decided advantage in this; and one which, for the most part, over-balances some disadvantages attending it.

"The social disposition manifested by many horses is such

as to render them dissatisfied when shut up in boxes which do not communicate with adjoining ones ; on the other hand, some horses are restless if not entirely secluded from their species."

We have always been of opinion that horses were used under great disadvantages, irksomely to themselves, besides awkwardly and annoying to their riders and drivers, who had not been educated, or, as it is called, "broke in," for the purpose for which they were intended. Compared with the number who receive no "breaking" at all—or none, save what little they get, to quiet them to domesticity, from the hands of the country "colt breaker," how few are they who have once had a schoolmaster's whip over their heads. And yet, mount an animal of this numberless class, and afterwards throw the leg over a really broke or managed horse, and the difference is likely to prove as great as—speaking not so very wildly—between riding a horse and riding a cow. True it is, with persons who do not from experience understand this, riding is riding, so long as it be on horseback ; but a true and expert horseman would as soon ride a donkey as an awkward, no-mouthed, no-paced horse. Hear what "Cecil" says, and thereby receive a "wrinkle" or two :—

"Mankind are strongly marked by education, and every individual carries the stamp of the place of his instruction upon him through life. The bearing of an Etonian is readily distinguished from the comparatively rude manners of the youth who receives his instruction at an ordinary school. A similar distinction is discernible in the education of the horse : one that has received the finishing polish of tuition from an experienced and accomplished rider, is an infinitely more agreeable servant and companion than a rough animal from the hands of a provincial colt-breaker, or the usually unsophisticated guidance of a hard-riding farmer. The trainer can seldom expect to have colts placed under his care, which do not require some tutelage under his hands ; if they have been sufficiently broken as to ride quietly, that is all he can expect. To follow other horses up gallops, and perform the requisite accomplishments during the successive courses of preparation, will, in most instances, come under the supervision of the trainer ; and, indeed, on many occasions he will have to direct the entire breaking or tuition of

young stock intrusted to his care. Those who follow hounds are frequently in a similar position: whether the duty is undertaken by the master, or devolves upon the groom, it is a task of greater difficulty than that which falls to the lot of the trainer; because there are so many more accomplishments required in the experienced hunter than the race horse. In fact, the lessons which the latter goes through daily when at exercise, nearly qualify him for his duties on the course. \* \* Concluding a colt to be so far advanced in his education that he will ride quietly, the next process is to teach him to canter; and in the first probations it is far more rational to put up a man of tolerably light weight, or boy of moderate proportions with power and experience, who can ride well, than incapable urchins with whom it is a matter of great chance if the colt does not contract some bad habit, which will not easily be corrected. It is to be remembered, at this stage of training, the colt is not required to go at a fast pace; it would not be proper, either as regards his education or his condition. To promote these intentions, a steady horse of more mature age is requisite to lead the work. On all occasions it is a consideration of moment to avoid alarming a horse; and although this applies to every hour of his life, it is of greater consequence with young than with aged horses; that is to say, young ones will be alarmed at trifling objects, which at a future age they would not notice. Exercise grounds will frequently be in such order, that the preceding horse will throw the dirt upon the one which follows: with young ones this should be carefully prevented, by keeping at such a distance as to escape the disagreeable salutation. It will be time enough to *lay up* and accustom the young animal to this unpleasantness as he becomes more and more advanced in his preparation and has gained confidence, at which period it is highly advisable he should be occasionally accustomed to the unceremonious proceeding, that it may not be new to him on being brought to the post to run, when he will at times be subject to the annoyance.

“As the first preparation advances, an increase of pace will be occasionally necessary; but this must be adopted with discretion, for there can be no doubt that more young animals are ruined by injudiciously hurrying them in their work, both with reference to breaking, and the endeavour to promote their condition, than by any other single circumstance. Improvement, in whatever way it is courted, must be acquired by slow degrees; and whoever attempts to assail the handiworks of nature, by violent or precipitate measures, is certain to be foiled in the attempt.



“At this stage in the operation of breaking, it is presumed that the ordeal of lounching has been completed, when the condition of the mouth becomes an object of paramount attention. The control which we acquire over the horse depends upon the mouth, and likewise a vast proportion of the agreeable or disagreeable associations which render exercise on horseback pleasant or toilsome. A good mouth is the medium by which any improvement in the natural carriage of an animal is to be accomplished. When going at a slow pace, the way in which a horse carries himself may, to a very considerable extent, be controlled; but when at speed, or even when nearly approximating that pace, his unrestrained action must prevail. By habit in the slow paces, improvement in the faster ones may be slightly obtained; but that must be brought about by very moderate attempts, otherwise the action of the animal, far from being corrected, will inevitably be rendered worse. A horse that bends himself nicely, is undoubtedly more pleasant to ride than one which runs with his nose down to his knees; or the reverse, with his head in rivalry with that of his rider; and such defects are, in most cases, capable of correction if properly treated in juvenile days; but too much constraint is adverse to pace, both for racing and hunting. When a horse carries his head too high, it may, in many instances, be remedied by using a curb bit without any port, but with rather long cheeks, and the curb chain hung quite loose. Accompanied with good hands, this often produces an excellent effect, especially with young horses, which are disposed to contend against the control of a martingale. It may appear as a contradiction, but when a horse carries his head too low, a curb bridle will often be found the best remedy; and the contradiction is cleared up by the remark, that it is by the way of adjusting and using the curb, that the difference of effect is produced. For the latter purpose, a short-cheeked bit, when judiciously used, will with many subjects be found effectual; and, in order to render it so, the hands must be raised higher than usual at the precise instant when the animal endeavours to drop his head; by this means the curb is brought into action, but should be again released when the proper position of the head is obtained. This should be particularly attended to, for such horses are very subject to hang on the bit,—an imperfection likely to increase with age if not counteracted. Although I so far advocate the use of double rein or curb bridles for certain purposes, let me not be misunderstood as recommending them for general use,—quite the reverse. A horse with a good mouth, carrying his head in the true

position, never goes so freely and pleasantly to himself, as with a snaffle bridle; but it is to teach the horse how to carry himself, that the curb is in many cases of great utility."

On the subject of "bits" a great deal is to be said. Owing to faulty make, faulty mouths, and faulty legs, it rarely happens that we meet with what horsemen understand by "a snaffle bridle horse." When we do, he is indeed a treasure to his master. Defect in one of these respects it is which accounts for the so general use of curb-bits; they render heavy heads comparatively light in hand; make hard mouths comparatively soft; and keep horses up when they have hardly fore legs to carry them safely along.

"A really good hack is a creature difficult to procure. Not that there is a great scarcity of the 'raw material,' but, unfortunately, it is only the raw material that can, in many instances, be obtained; this arises principally from want of care in breaking. It is presumptuous in people to suppose, and subjects them to ridicule when they assert, that they can complete the education of a colt as well in three weeks as in three years; but there may be some few who do not appreciate a nicely-trained hack, and it is a great pity when such an animal happens to get into their possession. In my juvenile days I was forcibly struck with the prevailing fact, that hacks, when sold in consequence of imperative events, out of the studs of noblemen and others of wealth, realised such great prices, while equally good-looking animals at fairs, or in the possession of persons of less note, were purchasable at very reduced figures; but the cause may be readily explained. Those who have the means, only purchase such horses as are thoroughly educated, or they employ men of experience to break, and cultivate the accomplishments of the horses which they either breed or buy. Of course they only select those of goodly appearance, with superior action; and no one need despair of making them agreeable to ride, if they will unite patience with discretion. Such animals will always realise a good price; but it requires time to render them perfect. To suppose that a horse can be educated, so as to carry his rider with comfort and pleasure, in three weeks, or even three months, is ridiculous. An animal may be ridden in a very few days after he is taken in hand; but it is not assumed that a gentleman will undertake the duties of a rough rider, and until horses are quite tractable, handy, and accomplished, they are not marketable at high prices."

Passing over the chapters on "Stable Discipline," "Training at Two Years old," "First, Second, and Final Preparations" for work; "Sweating," "Trials," "Management of the Legs and Feet," "Shoeing," "Bandages and Boots," "Clothing," "Physic," and "Travelling," as being of interest mainly to the trainer, or gentleman training his own horse, we come to chapter XIX,—"Clipping and Singeing," in one of which we shall find our author dipping a little bit into anatomy and physiology. There can be no doubt that clipping or singeing horses has been productive of advantages both to them and their riders; at the same time, it is one that saves the colt many a strapping, while it has a tendency to render grooms slack at their work. Before clipping or singeing was introduced, horses, particularly when they had good coats, came out of well-conducted stables nearly as fine and as well up to the mark as they do at the present day; though there was in many studs a black sheep—a horse with, naturally, a long woolly coat, a coat which all the strapping in the world would not turn into the fine or silken hue denotive of *condition*. As to the difference between clipping and singeing a horse, Cecil has some remarks which we may notice, not more for their value than for their originality. Observing that race-horses are not subjected to any clipping or singeing, by reason of their "services not being required at the season of the year when it becomes necessary, namely, during the four months of mid-winter," he adds, in another place, "and I am quite prepared to recommend that process (singeing) in preference to clipping, from practical experience of the advantages derived from it by all hunters, hacks and steeple-chase horses."

"After having been singed, they do not experience that degree of chilliness, evident by their appearance when exposed in cold and windy weather, which they do when clipped, although they can be singed closer than they can be clipped; in fact, the singeing may be regulated to any degree that may be considered desirable.

"I imagine this distinction may be attributed to the fact that the process of singeing has the effect of closing or, as it were, *sealing up the outer extremity of each hair*, which, being a hollow tube, when merely cut with the scissors, is

left open, and therefore acts as a conductor of cold to the skin; for although after clipping it is usual to make use of the singeing apparatus, the flame does not come in contact with every particular hair, or even one in twenty; consequently, the inconvenience alluded to still exists to a very considerable extent. When singeing is nicely performed, the coat will retain its original colour and gloss, but that is not generally the case after clipping.

“Many persons entertain an idea that singeing is only practicable with horses whose coats have not become very long and thick, and therefore, to prevent that it must be commenced very early—before they have grown. Although it is very desirable to do so, and, by repeating the operation every week or ten days, keep them short, it is not imperative. Very recently a horse came into my possession with a particularly long and woolly coat, and the day after he arrived, a friend, who happened to call, a very good judge in such matters, observed it was a decided case for clipping. “No,” I replied, “he shall be singed.” My friend was of opinion it could not be done satisfactorily; nevertheless, I was determined it should be tried. The process was conducted as follows:—The horse was singed as close as circumstances would permit, because, it must be observed, when the coat is in that state, after the singeing-lamp has been applied several times in succession to one part, a dampness arises from perspiration, occasioned by the warmth of the flame, in which state the operation cannot be continued. After singeing, the horse was sweated moderately, and, immediately on his return to the stable, well washed with warm water and soft soap, thoroughly scraped and dressed. On the following day the operation was renewed in a similar manner, and repeated with intervals of a few days till the coat was reduced to the state I wished it to be.”

For our own part, we imagine rather that the distinction between clipping and singeing, in regard to their effects, to be, that singeing creates an excited action of the skin, (*the dermis*) which counteracts any ill consequences, such as “catching cold,” the deprivation of the hair may have a tendency to; and not as Cecil “imagines,” that the sealing up of the hair, which he rightly describes to be “a hollow tube,” has much to do with it: the root or hollow of the hair, after all, not being exposed.

“The only objection that can be raised against clipping or



singeing is the dull appearance which it entails upon all horses at the spring of the year, just at the period of shedding their coats. These operations have likewise an influence in postponing the time when the new coat makes its appearance,—inconveniences which are trivial compared with the advantages derived at that season of the year when the services of the hunter are most valuable to the sportsman.”

Now comes a “knotty point.”

“There is a most extraordinary phenomenon connected with horses’ coats, which I believe has never yet been accounted for ; that is, blind horses will have fine coats in the winter, and rough ones in the summer, thereby reversing the order of those which enjoy the faculty of sight. It is far beyond my comprehension to explain or even guess at the cause ; at the same time it would be exceedingly interesting to all who are concerned in the management of horses, if the knotty point could be elucidated. If it could be discovered, there is a possibility that the result might lead to the substitution of means whereby the coats of horses could be kept fine throughout the winter without resorting to the alternatives of clipping or singeing. An attempt has been made by a veterinary surgeon, whose name I am not acquainted with, to explain this mystery ; but he unfortunately failed at the outset by stating that blind horses are *always* rough in their coats, which is not the fact. In the days when stage coaches triumphed, many blind horses were employed ; and any superficial observer would readily detect those which were so afflicted in the winter months by the peculiar fineness of their coats. No difference of treatment would occasion this, as the horses composing a team most assuredly fared alike ; hence it is more conclusive that some physical influence, as yet unknown, produces this extraordinary characteristic.”

Strange, passing strange !—if true ? And that it is true, “any superficial observer would readily detect it.” The same question was mooted, twelve or eighteen months ago, in *Bell’s Life*,—perhaps by Cecil—but no satisfactory explanation was given of the fact—*if fact it be*. For our own part we have not noted —indeed have had no opportunity of noticing the point.

Here we shall close our account. The little book we have been examining is one of that light class which a Veterinarian may read after the business of the day is over, without

drawing too largely on his thoughts, and yet sufficiently so to keep him from napping. He may and will, out of his own immediate department, get "a few wrinkles;" and with them will find himself better armed against the trainer, should chance bring him into his company; as well as better able to cope with the sporting man with whom he is more likely to find himself associated.

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## VETERINARY JURISPRUDENCE.

THE LATE MATCH AGAINST TIME FROM OXFORD TO LONDON.

*Burnham (Bucks) Petty Sessions, Jan. 17.*

THE magistrates acting for this district, the Hon. G. T. Irby, the Rev. T. Carter, and R. R. Clayton, Esq., were occupied to-day for several hours in the hearing of an information, laid at the instance of the Society for the Prevention of Cruelty to Animals, through their Secretary, Mr. Thomas, against Mr. John Pickett, the landlord of the Plough Inn, Oxford, for having, as was alleged, cruelly ill-treated and over-driven a pony, during the performance of a match against time between Oxford and London, and back.

Mr. Thomas appeared in support of the information, and the defendant, who appeared in pursuance of the summons served upon him, was represented by Mr. I. J. Williams, the barrister.

Mr. Thomas briefly stated the circumstances under which the complaint was made against the defendant; and after observing that the cruelty which was imputed to him was carried out apparently with no other object than to enable him to win his wager, and other profit, through the suffering of the wretched animal that was under his control, he put the case to the bench as one in which they would be only doing their duty by committing the defendant to gaol, instead of inflicting a penalty.

The following evidence was then adduced:—

Sarah Howell deposed that she kept the toll-gate at Haddington, about three miles on the London side of Oxford. She knew the defendant, and saw him on Sunday, the 19th December, and he told her he was going to drive his pony to London and back the Tuesday morning following, and he wished me to keep the gate open between one and two

o'clock in the morning; he also said that he was to be back in Oxford a few minutes after nine o'clock the same evening. In consequence of what he said, the gate was opened for him between one and two o'clock, and she said the defendant came back at night about nine minutes before nine, with his pony and cart. A butcher's cart was before the defendant's cart, and attached to it from the shafts, thus dragging the pony and cart along. About ten days after this she again saw the defendant, who paid her the toll, and thanked her for paying attention to his request to leave the gate open.

Charles Pearse deposed that he was one of the constables of High Wycombe, and he remembered seeing the defendant with his pony and cart, about a quarter past five o'clock on the morning of the 21st December, in that town, which was about twenty-five miles from Oxford. He drove up to the Falcon Inn, and the pony was taken out of the cart and put into the stable, and witness examined it, but did not observe any marks of ill usage or anything particular about it at that time. Some gruel was offered to the pony, but it refused to take it. Witness asked the defendant "what was up that morning," and he said he was going to London, to the Bank, and back to Oxford with the pony that day, and that he had to go there and back in twenty hours, and that it was 120 miles the pony had to go; and he added that he had left Oxford at five minutes past one that morning. The pony was then harnessed again to the cart, and the defendant drove off towards London. About six o'clock the same evening he saw the defendant and the pony and cart again at the Falcon, and the pony was found to be very much distressed, and he observed some very large weals on the off side of his pony, and this induced him to look into the cart, and he saw a whip and a stick about as thick as a man's finger, and a yard long, which was split up the middle for about a foot, and a piece of the wood was split off. When the pony was in the stable some gruel was offered him, but he would not take any, and some hay was then put in it and offered to him but he refused this also, and witness observed this to the defendant, and he said that was the worst of it, the pony would not take anything hardly all day. A bit of raw beef was tied round the pony's bit before it was placed in his mouth, and the defendant drove away. Before he started another horse was placed in front of the pony as a leader. This leader was attached by two cords to the traces of the defendant's pony, and he was dragged off. The collar was pulled up more than a foot from his shoulders two or

three times before the pony moved, and he would not have moved then if some persons had not laid hold of his bridle, and when he went on the defendant began whipping him.

Mr. Irby.—Did he whip the animal severely?

Witness.—He did. The pony did not seem inclined to move until the other horse got on the trot, and then he was obliged to follow, being dragged along.

Examination continued.—Witness followed the defendant for about a quarter of a mile, and he got out at Wycombe about ten minutes after six. All this time witness followed him the defendant continued whipping the pony, who seemed quite in an unfit condition to proceed. He kept up with the defendant quite easily, as the pony appeared to be quite unable to travel with any speed.

By Mr. Williams.—The defendant stayed at the Falcon about five minutes in the morning, and he understood the pony had been in the stable about ten minutes when he saw it again at night. Had been in the police four years, and did not know much about horses. Had never seen a horse come in after running the Beacon Course at Newmarket. Witness did not bet upon the transaction, and he gave no information to any one until one of the constables of the Society for the Prevention of Cruelty to Animals applied to him, and he told him all he knew about it.

Henry Frewan, ostler at the King's Arms, at Uxbridge, said, that he had received instructions to sit up to receive a pony on the night of the 21st of December, and about a quarter before seven in the morning, the defendant arrived at his stableyard, and the pony was taken out and placed in the stable, and some gruel was offered to him, and also some corn, but the pony would not eat either the corn or the gruel. He did eat a small quantity of sweet hay and drank some water, and the defendant remained until about eight o'clock, and then drove away. Before he left witness looked into the cart and saw some traces, and also a stick like a walking stick, about as thick as his thumb. It was quite sound and perfect at this time. The pony returned to Uxbridge about two o'clock, and when it was taken out of harness, it reeled about and staggered like a drunken man. He put the pony into the stable and took off its harness, and the men dressed him as well as they could, and the defendant stayed until three o'clock. He looked into the cart while the defendant stopped, and observed that the stick he had seen in the morning was splintered about six inches up. The defendant left Uxbridge about three o'clock, and witness mounted a horse and rode after him, and overtook him about



two miles from the town; and at this time a leader was attached to the cart to draw it up a hill called Red-hill, and the leader was taken off when they got to the top. Witness rode on, and the defendant overtook him, and he saw him whip the pony, and also beat it with the stick. He appeared to hit as hard as he could with both; but it seemed to make very little impression on the pony. The ribs of the pony rattled when the defendant hit him with the stick. He continued beating and whipping the pony all the distance witness accompanied him, which was about six miles and a half, and as they were going along the defendant said he wished he had a collar, as he had some traces in his cart, and witness could have helped him along. The pony at this time certainly seemed to require helping along. The defendant stopped at Gerard's-cross, and they had some half-and-half together, and the ostler told the defendant that the pony would no more get to Oxford that night than he should; and he looked "beat" then. The defendant made no reply to this, but drove off, and the pony appeared to be very stiff; the defendant very soon began to use the whip and stick. Nothing was given to the pony at this stoppage. The defendant got out when they came to a hill, and the pony appeared hardly able to draw up the empty cart, and the defendant again used the whip and stick. As they were going along he told him that if he got into Oxford in time, he thought he should win about 60%. The pony was in a very good condition when he first saw him in the morning, considering the distance he had come.

By Mr. Williams.—The leader was put on at a steep hill. A friend of the defendant's recognised him at Beaconsfield, and they had some drink together, and the pony's mouth was washed out.

By the Rev. Mr. Carter.—The reason witness rode after the defendant was, that many persons in Uxbridge said that the pony would never reach Beaconsfield at all, and witness having a horse to exercise, he rode to Beaconsfield to see what took place, and whether the pony really performed the distance.

William Blackwell said that he was one of the parish constables of Beaconsfield. Between four and five o'clock on the afternoon of the 21st December, he saw Mr. Pickett drive past his house with a pony and cart. He was standing at a window up stairs, in his own house, and the state in which the pony appeared to be, induced him to go down into the street. The pony rolled about in the shafts, and also across the road, and the defendant was beating it most

violently at almost every step the pony took. The cart rolled about the road, from one side to the other, in consequence of the manner in which the pony staggered. He saw a crowd round the pony, and when it stopped at the Cross Keys, he went up and said, in the defendant's presence, that he had been using the pony shamefully, and that he deserved to be beaten as he had beaten the animal, and that if he knew who he was, he would "pull" him. The defendant drove off at a sort of walking pace, and when he had gone a short distance he again began to beat the pony with his whip, the same as he had done before.

By Mr. Williams.—He did not give any information with regard to the defendant's conduct until last Friday week.

Henry Howell, a toll-gatekeeper at Wycombe, proved that the defendant passed through his gate on his return to Oxford, between five and six in the afternoon. Witness knew that he was doing a match against time, and from the appearance of the pony he was induced to say to him that he thought he had lost it, and the defendant replied, that he was afraid he had, unless he could get a leader at Wycombe.

By the Bench.—The pony was under duty, and he should say not more than twelve hands high.

Mr. George Church, a tradesman, residing at Wycombe, proved that he put his hand on the pony as it passed through the town in the evening, and observed that he was very cold, and appeared dead beat. The defendant flogged the animal continually, and there were wheals in the side from the whip in which he could place his finger. When the pony was put in, after being taken into the Falcon yard, the defendant appeared to be the worse for liquor, and several people told him he could not win his match, and it was useless to distress the pony more by going any farther. It was then six o'clock, and he had to be in Oxford, which was twenty-five miles off, by nine o'clock, to win his match, and some of the bystanders offered to bet a hundred to one, in the hearing of the defendant, that the pony did not perform it. The defendant said he thought he could do it now he had got a leader, and it was witness's opinion that the pony would not have moved if he had not been dragged off by the other horse.

George Smith, one of the constables of the society, proved that he served the summons to attend the bench upon the defendant, and when he did so the defendant told him the summons was no good to him, and he might take it back to those who had sent him with it; at the same time making use of very filthy observations.

Mr. Williams then addressed the bench for the defendant. He contended that the evidence had failed to bring the case within the terms of the statute so as to support a charge of cruelty, and that the defendant had done no more than was done every day upon a race-course or in hunting. He submitted that the fact of the task being undertaken in pursuance of a wager did not at all alter the complexion of the case, and he said that although it was very possible that the animal was distressed considerably during the undertaking, yet that the evidence upon that point had been very much exaggerated. It was true that the defendant had undertaken for a wager that the pony should be driven from Oxford to London and back; but it was, at the same time, perfectly evident that he had taken all the precautions in his power, by preparing baiting places during the night, and otherwise, to refresh the animal, and enable it to perform its task with as little distress as possible. In conclusion, he said he trusted that if the magistrates should feel themselves compelled to come to the conclusion that the defendant had brought himself within the scope of the statute, that they would inflict a pecuniary fine, and not pass a sentence of imprisonment, which to a person in the position of the defendant would occasion total and inevitable ruin.

The following witnesses were then examined for the defence.

Ephraim Ashby, the person referred to by the former witness, Blackwell, deposed that he was the keeper of a toll-gate near Oxford, and knew the defendant. He happened to be at Beaconsfield by accident, when he drove by on his return from London, and he said that the pony was trotting cheerfully along at the rate of eight or nine miles an hour. Being anxious to get home, he asked the defendant to give him a lift, but he told him he could not, as he wished to be in Oxford by nine o'clock. He was quite sure that the pony did not stagger along the road, and that the defendant did not whip him.

In answer to a question put by Mr. Thomas, the witness said that the defendant told him he was driving the pony for a match, and that he had to be in Oxford by nine o'clock.

George Symonds, a livery-stable keeper, at Oxford, said that he was walking along the street when the pony came in, and he declared that it looked so fresh, that he should not have thought that it had gone thirty miles, if he had not been aware it had gone such a long distance. He saw the pony unharnessed and rubbed down, and he observed no wheals on the sides, and there did not appear to be anything the matter with it, and he believed the pony could have gone

thirty miles farther, if she had been required to do so. He also said that he did not consider it any remarkable feat for a horse to do 117 miles in twenty hours. The pony was sent to his stables the following morning, and one of his boys exercised it.

Cross-examined.—He had heard from the defendant that he was going to do a match against time with the pony, and that he was to drive to London and back in twenty hours, and he remarked to him that it was a very trifling thing. The pony had a leader before it when it came into Oxford. The leader might have been a butcher's cart, but he could not say. He did not observe that the pony-cart was dragged along by the butcher's cart, but he would not swear it was not.

Mr. Irby asked the witness if he could explain how it was that the pony, being so "fresh" as he represented it, it should be necessary for it to be dragged along in this manner?

The witness said that he did not know that the two carts were attached to each other; he could not see; it was dark at the time, and he could give no further answer to the question.

The certificates of two veterinary surgeons were admitted as evidence by Mr. Thomas; but they did not assist the defendant's case, as they were merely to the effect that they had examined the pony a day or two after the match, and that they observed no appearance of wheals upon the body of the animal, and that it did not appear at all injured by the feat it had performed.

The room was then cleared, and the magistrates, after a short deliberation, directed that the public should be readmitted. They then announced their decision to be, that the charge contained in the information had been established, and they adjudged the defendant to pay a fine of 40s., and 1*l.* 13*s.* costs.

The fine and costs were immediately paid.

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## Foreign Department.

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### A NEW MEMOIR ON PLEURO-PNEUMONIA.

*(Addressed to the Director of the Central Society of France.)*

By DOCTOR WILLEMS.

“MONSIEUR LE DIRECTEUR,—I have the honour of addressing to you some words on anti-pleuro-pneumonic inoculation. I do not understand much about the theory of inoculation and preservation ; but I shall speak of experiments, observations of facts, and of facts themselves. Thus it is, in my opinion, that the question ought to be resolved, and not by long and useless theorisations, in the manner some persons would seem to wish to entertain it ; thereby only seeking to retard, either voluntarily or involuntarily, the solution of a problem so materially interesting the agricultural industry of Europe at large.

“At the present day I regard more than ever the inoculation of pleuro-pneumonia as a certain preservative against the disease. This principle resting upon an unshakeable basis, I come with a conviction doubly strengthened to relate to you the evident facts on which its efficacy rests. What proves to me that my system acquires daily more credit, and obtains more strongly the conviction of persons even who were either opposed or indifferent to it, is that, although I had for six months announced my discovery, and had met with invariable success for a twelvemonth, still did all the world hold it in an astonished reserve. Scarcely any person believed in its reality : but at the present day those persons are beginning to perceive the reality of it, and now it is undergoing what all discoveries cited in history have undergone. Pretenders in Belgium and Holland seek to appropriate a part of the invention, or even the invention itself ; I do not contend for its merits, but, in all justice, let me have what is my own, and let no one deprive me of it, through pure longing for it or culpable envy ; it is the first of my researches, my experiments, and my reflections. *Suum cuique.*

“As I have already had the honour of announcing to you, Sir, the agricultural industry of the town of Hasselt has increased considerably since inoculation has been practised in it, and all those who desire it are invited to come and behold the progress it has made themselves. The MM. Nys, brothers, distillers, encouraged by the success they have de-

rived from inoculation for peripneumonia, have now in their stables 206 head of cattle, a number no other distiller in the place possesses; whilst in preceding years, at the same season, those gentlemen had themselves no more than 150 beasts in their stables. M. Platel, a distiller, who, as all the world hereabouts well knows, has seen his stables decimated at different times through pleuro-pneumonia, and has not in consequence, since 1840, dared to purchase any cattle, is now actually employed in filling his stables anew.

“Up to the present time, 12th September, more than 1350 head of cattle have been inoculated in the tail in my father’s stables, and (since the 29th of April, 1852) throughout the whole of the stables of the distillers here, whose beasts were at the time suffering from the scourge. MM. Rousseau and Stellingwerf, possessing but few beasts, and not having at the time when I made the first inoculations public the disease among them, would not submit them to inoculation; and, remarkable enough, while all the other distillers were without the disease, M. Rousseau had to entertain pleuro-pneumonia in his stables; which commenced on the 18th of August, from a Dutch ox that was sold to M. Gilkurs, the butcher, who disposed of it for consumption to the camp at Beverloo. On the 20th of September a second ox fell sick of pleuro-pneumonia, a fact which occurred under the eyes of MM. Simonds and Morton, Professors at the Veterinary College of London, who did me the honour at the time of paying me a visit.

“Of the 1350 beasts inoculated, 11 succumbed under the effects of inoculation, according to the official returns made to the Maison de Ville, while one contracted pleuro-pneumonia on the 2d of September, a beast belonging to M. Thiers, distiller. Be good enough, however, to notice, sir, that in this beast, although he had been inoculated, his tail showed no sign of it; the inoculation had taken no effect, and this will explain to you why I recommended re-inoculation to be practised on all beasts on whom the first inoculation had no consecutive local effect.

“Is it necessary for an animal to be preserved from pleuro-pneumonia by inoculation, that there be produced the ordinary morbid manifestations in the inoculated part? I do not think it. I consider the action of the pneumonic virus introduced into the beast’s organism as a kind of *dynamisation*; i. e., that the poison introduced at the tail, or through any other part of the body, becomes absorbed, enters into the blood, acts upon this, modifies it, and so influences all organs that it renders them incapable of contracting pleuro-pneumonia.

Nevertheless, the virus or poison ordinarily produces a local action more or less impressive upon the tissues with which it comes in immediate contact. Since we possess no other indication of the virus having produced its action, save the local morbid manifestation, it becomes advisable to reinoculate every beast on whom the first inoculation has been without effect; and this is absolutely the case with vaccine in man. I ought, however to remark that we may often observe an indicative sign of the absorption of the virus, although no lesion may be visible at the point of the tail, in fulness and swelling and hardness of the sacral glands at the insertion of the tail.

"In my last letter I had the honour of informing you that I have been seeking, experimentally, for a more convenient place for inoculation than the point of the tail. Now, however, I no longer think about it, and am rather anxious to retract what I said about inoculation in the dewlap, (*fanon*,) an error I was led into by M. Mavis, V. S., who too prematurely announced his success in this attempt.

"Many persons think that inoculation for peripneumonia is more conveniently practised in the dewlap than in the tail; but such persons are solely guided by theoretic views and not by experience. For instance, M. Mavis, V. S. of the Government at Hasselt, desirous of modifying my method of procedure, inoculated about thirty beasts in the dewlap, and this is the result. At the commencement of August sixteen beasts were inoculated in the dewlap, belonging to M. Claes: twelve of them fell victims to the consequences of the operations. At M. Mavis', brewer, at Hasselt, two cows were inoculated in the dewlap: both died. At M. Ant. Vinkerbosch's two oxen were inoculated in the dewlap, and they likewise both shared the same fate about fifteen days subsequent to the operation. Thus, through bad inoculation, have many beasts been killed outright.

"I have seen two cases wherein pleuro-pneumonia coincided with the local accidents of inoculation.

"On the 25th of August a beast belonging to M. Borreman, distiller at Hasselt, that had been inoculated on the 5th of August, having the tail much enlarged and the right limb very much swollen, presenting all the local phenomena of inoculation in their greatest intensity, died. In the autopsy I found a nucleus of morbid hepatisation. Did this come on immediately after inoculation, or did such lesions exist previously? I have frequently known, after the virus has been introduced into the tail, tumours arise characteristic of inoculation in different parts of the body, without the part where the virus was introduced presenting the slightest damp in its tissues.



“I have the honour of repeating, Sir, that the following two authentic facts, duly proved and received by MM., the members of the Committee, are acquired by science.

“1. On the 23d of July, two cows suffering severely from pleuro-pneumonia, were placed, at the request of the Central Committee, in my father’s stables along with a Durham bull, two Dutch oxen, a Dutch cow, and two oxen of our own breed, all previously inoculated. These two beasts succumbed standing by the sick, though others were in health, after a cohabitation of seven days and seven nights; they remained after death for a certain time where they stood, and yet all the inoculated cattle remain in the stable up to this very day in a state of perfect health.

“2. Two inoculated cows were put, on the 27th of July, at the request of the Committee, in a *fomes* of infection of pleuro-pneumonia, on the farm of Dumontier, where, of 17 beasts, 13 had already contracted the disease. These cows were at first mingled with such cattle as had already had the disease, where they were placed along with 7 who were suffering at the time for a couple of days, and lastly, amongst those that were convalescent. These cows are there still, and remain in excellent health. They were carefully examined on the 2d September by the honorable English professors, MM. Simonds and Morton, sent to Hasselt for the purpose of studying the phenomena of inoculation.

“At the Veterinary School of the State, divers experiments have been instituted and regularly pursued, which will not be long before they confirm the happy results which already have been obtained in other quarters.

“At the present day, pleuro-pneumonia has departed from the town of Hasselt. It has not vanished through chance, as some persons would have us believe,—it has ceased as the effect of the inoculation that has been practised, and by inoculation alone have we been delivered from the pest; since beasts not inoculated, left among such as have been inoculated, have at different periods contracted the disease: these facts have transpired principally at MM. Jean Fanvinkeroye and Nys, distillers. At M. Nys’, of 32 inoculated beasts, 17 have contracted pleuro-pneumonia; while 260 beasts have been subjected to inoculation since the 29th April, and not one of these last have been touched by the plague. M. Fahrz, distiller, has had a beast sick for three weeks, and M. Thiers for ten days.

“It has proved still more that what I say here is the fact that has taken place at M. Rousseau’s, which I mentioned before; and I am now going to relate to you what has



happened at M. Vanstraelen's, distillers. In the month of May, the stables of M. Vanstraelen were ravaged by pleuro-pneumonia; inoculation was introduced, and fifteen days afterwards there was not a single case of sickness. For three months inoculation continued to be practised, and for three months his stables were free from disease. About a month ago, M. Vanstraelen purchased 20 beasts, not inoculated, and put them along with his own inoculated ones. Three weeks afterwards, pleuro-pneumonia appeared in one of the new purchases, and on the 10th of September it was destroyed by order of the authorities. The same day, M. Vanstraelen had the remaining 19 inoculated. I shall again rest my assertion on what took place at the Chateau de Hirkenrode; and lastly, at the farm of Dumoulin, then at his brother's, who, residing at twenty minutes' walk from the town, has had, of 7 beasts he possessed on the 24th of August last, 6 attacked with pleuro-pneumonia. All these experiences go to confirm my proposition.

"And now, Sir, I will offer to your notice some fresh observations, showing my procedure of inoculation to be preservative against epizootic pleuro-pneumonia.

"On the 25th of July, pleuro-pneumonia broke out at the Chateau de Hirkenrode upon an ox: it was killed by order of the authorities; and the following morning 16 others were inoculated in the dewlap, and 2 in the tail; since which no beast has contracted the disease.

"At Bovendans, a famous inn (*auberge*) in the neighbourhood of Diest, there were 23 beasts; and for several years they had known nothing about pleuro-pneumonia. On the 20th of June, 1852, the disease broke out, and on the 7th of August, at the instance of M. Mommein, V. S. of the government at Wark-la-Ville, I went thither, and, on my arrival, learned that 4 beasts had died of pleuro-pneumonia, and that 3 others while suffering from it had been transferred to the butcher. I also found five others in the stable in the last stage of the disease. I caused one of the sick to be slaughtered, and took from it some virus, with which I inoculated those still remaining. On those that were sick already, according to M. Mommein and the people of the house, the inoculation took no effect. Two days after inoculation, 2 other beasts fell sick; and on 11 the pneumonia of inoculation became manifest. So that of the 23 beasts of this establishment, 9 died from the disease, 3 were given over to the butcher, and 11 were saved by inoculation, though unfortunately late in its application.

"At Loonbeck, (a village four miles from Louvain,) pleuro-

pneumonia broke out on the 10th of August, in the stables of M. Strootbants. One beast died. M. Strootbants' son, studying medicine, came to me on the 16th of August, and the next morning he inoculated his beasts, and pleuro-pneumonia appeared no more. From this time numbers of beasts in the neighbourhood were inoculated, among others those of Baron D'Overschie.

"At farmer Dumoulin's, of whom we have already spoken, pleuro-pneumonia ceased ten days after inoculation. Four beasts, in good condition, remained well; and of 13, four became re-established, and nine have either died of the disease or been delivered over to the butchery.

"At farmers Maréchal and Mans, at Vrage, when the Minister of the Interior did me the honour to send me to make inquiries as to the results of inoculation, no inoculated beast, nor any that had shown the local phenomena of inoculation, has contracted pleuro-pneumonia; while there are some who have been inoculated, but in whom inoculation has not produced local manifestation. These facts were attested by M. Renier, V. S. of the government at Waremmé, and by MM. the veterinarians Coene and Janné, who accompanied me.

"On the 25th of August I had the honour of receiving M. Lefour, Inspector-General of Agriculture in France, who narrated to me a fact which, in his mind, was conclusive:—M. Decrombecque, agriculturist at Lens, (Pas-de-Calais,) has obtained happy results from inoculation. For a great number of years the stables of this large proprietor had been ravaged by this pest; while this year, thanks to inoculation, he has not a single case of the disease.

"On the 29th of August I received a letter from M. Decrombecque himself, confirming the success of inoculation, which had been communicated to me by M. Lefour.

"Everywhere, Sir, it is the same, of which I could mention many parallel facts. Everywhere, where I have introduced my method of inoculation, and have continued its use for three weeks, pleuro-pneumonia has invariably ceased. It is impossible to cite a case to the contrary.

"I have the honour of reminding you still of a very important point. Inoculation affects young animals through lesions much less marked than animals advanced in years. Therefore it becomes more advantageous to inoculate young subjects, which, in case of accident, are of less value, who suffer less, and who are equally preserved by the inoculation. Thus we obtain the experience of a Dutch farmer, who had never seen pleuro-pneumonia in his stables, whilst his neigh-

bours were continually tormented by the pest; and this was on account of his choosing to fill his stables with calves which had had pleuro-pneumonia and had got well of it.

"A second fact I have already had the honour of communicating to you is, that secondary virus transmits equally well the local lesion, and very probably the general preservative influence likewise, and that, on the other side, it has a less violent reaction on the tissues with which it has been placed in contact than the primitive virus has. I also think that the method of inoculation will be prescribed, on some future day, in this way,—to take secondary virus and inoculate young animals.

"It would also be a matter of some moment to inoculate, from the present time, all bulls serving the purpose of reproduction.

"Accept, Sir, the assurance of my highest consideration.

"LOUIS WILLEMS,

"*Doctor in Medicine.*"

"HASSELT; 14th September, 1852."

(*Extrait du Moniteur Agricole.*)

\*.\* The editor of the *Réveil de Méd. Vét.* from which the above is taken, remarks, in regard to it, that notwithstanding, the facts published in it stand in need of vigour and precision; that the conclusions adduced from them have the appearance of being rather hasty and not sufficiently indicated by their premises; and that, although the memoir altogether evinces too much impatience on the part of the inventor, who is desirous of forcing with even convictions in favour of his doctrine, and does not care to wait until experience and time shall have declared for him; nevertheless, it appears to us, our readers will peruse the paper with interest, and that this will be augmented, in spite of any defect there may be in the argumentation, when it is permitted to us to hope that preventive inoculation will have, in point of fact, the happy results M. Willems has in his memoir attributed to them.

## ON THE CURATIVE TREATMENT OF CANKER.

By M. FISCHER, Veterinarian at Essengen-lez-Luxembourg.

"I propose in this paper to draw the attention of Veterinarians to some therapeutic measures extolled among the

German veterinary surgeons, from which I have myself derived advantages.

“Under the denomination of *canker* or *carcinoma of the foot*, I understand that disease of it which is characterised by vegetations of a carcinomatous aspect, be it of the frog or sole, or both; and I look upon such disease as *constitutional*. And many observations have likewise induced me to believe the disease *hereditary* as well, an opinion prevalent with many breeders in my part of the country.

“In my first years of practice I treated many cases of canker very successfully by *incision*, followed up by dressings, applied nicely with pressure, never neglecting *internal* treatment as well. This mode of treatment, however, requires much time, particularly when more than one foot is affected, and when they require to be successively operated on.

“It was not until 1845 that a curative treatment, recommended in the *Veterinary Gazette*, published by the Professors of the Veterinary College of Carlsruhe, attracted my attention. It was said to have been practised with success at Stuttgart. It consisted in destroying the fungous vegetations with a highly caustic liquor composed as follows:

“Take of Arsenic,  
Caustic Potash, of each, ʒj.

“Dissolve in ʒij of water, in a flask hermetically closed, and, when dissolved, add ʒj of aloes finely powdered. The caustic potash should be pure.

“This application is made to the fungous excrescences after the parts diseased have been properly pared out and wiped clean and dry. Should the caustic excite much pain, a pediluvium of *cold* water is recommended. Purgatives should be given. From my own trial of this treatment, I should say that the caustic, being very violent, ought to be used with caution.

“The new method of treatment I have lately employed, with a success that has exceeded my expectation, is that recommended by M. Eichbaum, District Veterinarian in Prussia, published by him in the *Journal of the Veterinary School of Berlin*.

“M. Eichbaum regards canker as a *constitutional* disease: he says it arises from internal causes. This new method of treatment consists,—1st, in correcting the destructive quality of the secreted ichor; and, 2dly, especially of *suppressing* the ichorous secretion. This he effects as follows:—He first prepares and cleanses the cankered foot, taking away all the diseased parts he can without making the foot bleed. He



then makes a paste with chloride of lime with very little water ; with which paste he covers the entire ulcerous surface, and imbues every diseased cavity and crevice to the thickness of a couple of lines. After which, to prevent any access of moisture, he adds a second coating of unslacked lime, made into a paste in the same manner, and then envelopes the foot in a leather boot. He inserts setons in the vicinity of the diseased part : if a fore foot, in the breast ; if a hind, in the thigh ; and he administers to his patient a strong dose of physic. Should the ichorous discharge from the foot be fresh, he mixes with the lime powdered oak bark, and sprinkles the foot with it after the dressing ; finally covering the whole with a paste of quick lime before putting on the shoe or boot. According to the profusion of the discharge, the powder is removed once or twice a day, until at last nothing is used but the lime paste, that being repeated daily. As soon as the fungous vegetations cease to grow again, and the characteristic odour of the disease has disappeared—effects commonly observable after a fortnight or three weeks of treatment—we are convinced that the destructive action of the ichor has ceased, when we may employ a foot-bath of slacked lime, such as may be found anywhere. The bath should be of the consistence of thick paste ; for, if too liquid, it will render the horn too soft, and if too stiff, the feet do not penetrate it sufficiently. The foot should stand in it three or four hours daily, putting on the boot afterwards. For convenience' sake, the bath may have the form of cataplasm given to it. The purgation, during the local treatment, should be repeated about every fourth day, or if the treatment be protracted, the kidneys may be, alternately with the bowels, acted on ; for which purpose M. Eichbaum makes use of cantharides, in combination with camphor, oil of turpentine, and powdered gentian and mallow root.

“In this way, M. Eichbaum talks of curing canker in a fortnight, while the morbid productions are yet but small. But should the knife or caustic have been previously used, so as to destroy the podophyllous tissue, six or eight weeks will be required. It is only where caries of the periosteum or of the bone has taken place, and the hoof begins to part from the cutis-dura, and different signs betoken absorption of the organism, that the prognostic becomes doubtful.

“Very recently in the Berlin Veterinary Journal, M. Kirchner, veterinary surgeon of the first class in the Prussian army, has recommended a plan of treatment from which, he says, he has derived the happiest results. I have not yet put it to the test, though I may observe here that I find much

analogy between it and M. Eichbaum's plan. It consists in washing the affected feet six times daily in lye saturated with wood ashes, and afterwards dressing them with a concentrated solution of chloride of lime, made by pouring two quarts of hot water upon a pound of lime. Considering the disease to be local, M. Kirchner makes use of no internal treatment.—*Récueil de Méd. Vét. du Sept. 1852.*

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## A NEW METHOD OF FIRING, IN WHICH THE STROKES ARE SHORT AND INTERRUPTED OR ISOLATED.

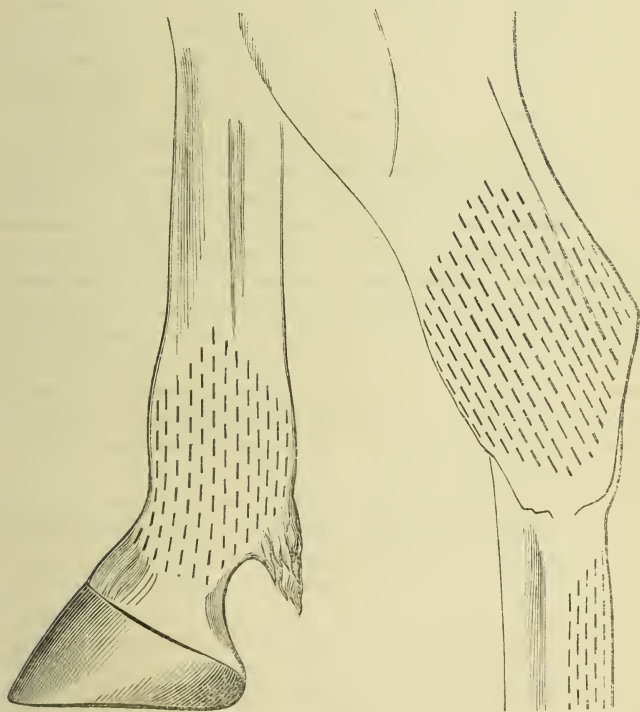
By M. L. PRANGÉ, Veterinarian at Paris.

“IT is impossible in human affairs to reckon on perfection being constant. The most approved methods and simplest modes of procedure in surgery become inapplicable under a variety of circumstances, which makes it extremely difficult to meet with a principle in practical surgery susceptible of extended generalisation. Of this we are about to give an example, and afterwards to propose a new method of applying heat through the aid of the actual cautery. Veterinary surgery has studied the firing iron with undivided attention; and notwithstanding we find in the study of it, and in trials with it, abundance and variety of detail, and a wide field of judicious practice, still are left behind mines of information which have escaped our research. The Arabians, great advocates for the employment of fire in human medicine, have written some excellent encomia on actual cauterisation. Since this, Albucasis, and, later still, our great physician Severin Pinaud, have brought to perfection this department of surgery; notwithstanding all which, we at the present day behold the firing now confined to animals alone, upon whom have been inflicted by it some frightful blemishes, and who, if they could speak, would exclaim,—‘Let us alone,—the remedy is worse than the disease.’

“M. Prangé has thought that the blemishes and sores, and other ill consequences too apt to arise from firing when severe, may be avoided by giving to the application of the iron some other graphic disposition. By interrupting the lines we draw, and by spacing them, we allow the skin to retain part of its elasticity; in which case, should much swelling ensue, it might stretch and expand; and then, when the swelling came to subside, the chasms made by the iron

would be found in comparative approximation, and be furnished with compressive action from the remaining portions of skin. And should it happen that one firing, well performed, did not prove availing, a second firing might be practised by scoring the interstices left through the interruptions of the first.

To practise this mode of firing, the iron made use of by M. Prangé is *cuneiform*, has a straight convex blade, and is less than half the size of the common firing iron. In using it, we must fire from left to right. And the strokes, or other marks, M. Prangé commonly makes, on an average from 1 to 1½ inch in length, and half an inch apart, lengthwise : the interspaces being regulated by the breed of the horse and the nature of the enlargement, &c. The subjoined woodcut represents a fired fetlock and hock :—



## NATIONAL VETERINARY SCHOOL OF ALFORT.

## DISTRIBUTION OF PRIZES AND DIPLOMAS THEREAT.

THIS took place on Sunday, the 29th of August, 1852, under the presidency of M. Merruau, Secretary General of the Prefecture of the Seine, who, in the absence of the Minister of the Interior, Agriculture, and Commerce, spoke as follows:—

Expressing the regret of the President being absent, M. Merruau assured the meeting of the interest he took in the studies of the pupils, his solicitude in this fine establishment, his felicitations, &c.

“You all know well the esteem the Government sets on this useful and learned profession, manifested by a recent act which has elevated the rank of army veterinarians, by which it is hoped consummate talent and distinguished minds will be attracted to pursue a science concerned at once in the force and riches of the country. No pursuit renders greater service to the country than the veterinary: agriculture, industry, commerce, as well as the army, receive vast aids from it. The domestic animals contribute to our intelligence, to our wants, their superior powers, their wonderful instincts, their ever-ready servitude, their entire substance. They are at once sources of revenue, machines, means of transport, labourers, companions, at times friends even, prime movers, clothes, aliment, docile subjects, with abundant experience: what are they not to us? they partake of our labours without profiting by them; of our pleasures without enjoyment in them; of our glory even without hesitation: they live and die to serve us, and we seek but too often the secret of our own good at the very heart even of their sufferings. Veterinary science is still but recent. It dates its foundation but from that of the school we are now in, from less than a hundred years. The future envelopes many discoveries, among which, let us hope, will be found efficacious remedies for some of the terrific diseases yet without means of cure.”

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REPORT OF THE TRANSACTIONS AT THE ALFORT  
SCHOOL, 1851-2.

DURING this sessional year, clinical instruction has extended its observation over 8482 animals of different kinds.



Of this number, 1446 have been actually admitted into the hospital, either for the purpose of being treated for disease, for being examined for returnable defects, or as subjects of surgical or therapeutic experiment. The remaining 7036 were subjects of consultation.

“The 1446 animals admitted consisted

Of the horse tribe	.	.	.	1041
“ bovine do.	.	.	.	22
Of small species	.	.	.	383
				<hr/> 1446

“Animals submitted to consultation were—

Horses	.	.	.	.	6510
Cows	.	.	.	.	33
Asses and Mules	.	.	.	.	80
Dogs	.	.	.	.	397
“Small Animals	{	Goats	17		
		Cats	4	.	.
		Pigs	3		26

“If we add to this the number returned last scholastic year, 7994, it will be seen that the pupils receiving their diplomas, after having spent two years at school, have had opportunities of instruction in veterinary medicine and surgery from the considerable number of 16,486 subjects of different species. It is to be regretted, in order to obtain the greatest amount of instruction we can from this large number of patients, that there does not exist a special chair of clinique, exclusively devoted to the demonstration of disease at the habitation of the patient.

“If a chair existed specially for clinique, it would be possible with the number and variety of patients which came to the infirmary of the school, every week to give to the pupils three lectures on the practical demonstration of disease; besides instituting a regular course of surgical, therapeutic, pharmacologic, and toxicologic experiments, which would not fail to result in great advantages to theoretic and practical medicine; in initiating the pupils in, by daily exercises, the art of observing and recording their observations; and, last of all, in practising them in the exercise of surgical operations during the entire session; for which purpose, animals given up and which are doomed to destruction might be consigned to us. Besides which, the pupils in small groups might be conducted, under the direction of the chiefs of the school, over the farms of farmers living in the vicinity of the institution

—in which way they might be brought more completely into contact with animals of the bovine, ovine, and porcine classes, and the diseases to which they are subject. Thus might be filled up one of the gaps existing in the instruction of the school: one which we believe it our duty here to point out.”

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## RABID, GLANDERED, AND TYPHOID (CHARBONNEUSES) DISEASES.

AMONG the ordinary severe diseases of animals, which sometimes occasion serious mischief to agriculture, from their transmissibility to the human species, these are the most fearful, and withal the most important for study, in regard to their manner of transmission. Nevertheless, but very little progress has been made in respect to a question at once so serious and so complex. Science is still far from being *au fait* on this point; so that the administration, with reason, hesitates and trembles when it has to take measures against these firebrands.

Struck with these doubts and incertitudes, M. M. Directors of the School, undertook and incessantly pursued for upwards of twenty years experiments, both varied and numerous, which have already cast considerable light upon this subject. We have already, in preceding reports, communicated what M. Renault has accomplished. This year he has added what follows.

Guided by actual facts, elicited by science, on the properties of virulent matters, the police regulations now prescribe, under very heavy penalties, to destroy and bury at a certain depth, distant from any dwelling house, the offal, skin, and flesh of animals that have died of contagious diseases. But, from numerous trials made in the course of 1850, it has resulted that in the state even of *desiccation* in which such matters are used in the arts, the utilisable *debris* possess no danger, either for other animals or for man. Indeed, in none of the many experiments in which M. Renault has inoculated with the dessicated matter, even of that most virulent and active, he has not been able even to produce the slightest local effect on animals whom he has inoculated.

He has, on several occasions, placed in small houses, containing dried skins taken from such dead sheep that had the rot fifteen or twenty days before, healthy living sheep,

for upwards of a month, without one sheep having contracted the disease.

And the same with another disease—glanders. He has tied horses in health up with halters that have been covered with glandered matter, which has been dried upon them by exposure to air for above twenty days, and not one horse has taken the disease.

Experiments made in the same manner with putrid matter have yielded similar results.

Whence may be drawn this important inference—that contagious matter in a state of *putrefaction*, or when completely *desiccated* by free exposure to air, loses its poisonous properties.

M. Renault has had the misfortune of having made no progress towards the *cure* of that dreadful disease, *rabies*; though he has ascertained it as a fact that, up to the present time none of the animals on whom the wounds from bites and inoculations have been thoroughly cauterised within twenty-four hours after inoculation or bite, have contracted madness.

He has likewise equally established the fact, that, out of the number of individuals bitten by mad dogs, and left without any treatment, *one third* is the greatest proportion that contract the disease: the public believing generally that almost all the bitten subjects catch this cruel malady.

The transfusion of blood from two dogs in a state of madness into the veins of two dogs in health, produced no effect. The same (no) result has taken place on inoculation with the blood taken by pricks into the veins of mad animals.

Lastly, M. Renault has this year presented to the Academy of Sciences a long account, comprehending all the experiments on the effects of ingestion of poisonous matters into the digestive canal, both of man and domestic animals.

The conclusions of this work affect the public hygiene and the industrial economy:—

That there exists no sanitary reason why pigs and poultry should not be nourished with the *debris* of yards and knackers' residences, let them be where they will.

That the flesh of these animals undergoes no modification, no appreciable diminution of quality, after they are fed with virulent matters; and that however conceivable the repugnance of man to feed upon the flesh or milk of oxen, sheep, or poultry, affected with contagious disease, there is not, in reality, any danger in eating FLESH THAT HAS BEEN COOKED, or MILK THAT HAS BEEN BOILED, coming from such animals.

## Home Department.

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### ROYAL AGRICULTURAL COLLEGE.

PRESENTATION TO THE REV. J. S. HAYGARTH, PRINCIPAL.

ON Saturday evening last, the 11th instant, the Students of the institution gave a dinner in the College hall, to which the Principal and Professors were invited, Mr. Peile, one of the senior students, in the chair. After the cloth had been removed, the loyal toasts given and received as became members of a college owning her Majesty's charter, and honoured by the patronage of H. R. H. Prince Albert, the Chairman rose, on behalf of his brother students, to testify, in their names, to the affectionate respect they all entertain for the Rev. Gentleman who fills the responsible position of Principal in the College. In the course of a feeling and appropriate address, whose reception indicated how well it expressed the sentiments of all present, the worthy Chairman dwelt on the steady and gratifying progress which had hitherto marked Mr. Haygarth's government; alluding in grateful terms to that friendly feeling which embodied itself in all his actions towards them as students; and rejoicing that they had now an opportunity of tendering their acknowledgments and giving utterance to their sentiments of respect, gratitude, and esteem; respect for his position as a Clergyman of the Church of England and Principal of the College,—gratitude for his uniform kindness and attention in all that concerned their interests,—and esteem for one who could so successfully solve the difficult problem of combining the functions of the ruler with the spirit and feeling of the friend. The Chairman then presented to Mr. Haygarth a handsome silver tea service, a portion of which bore this inscription:—

“To the Rev. J. S. HAYGARTH, Principal,  
from the Students of the Royal Agricultural College,  
in token of their gratitude and esteem,  
Dec. 11th, 1852.”

The Rev. Principal rose to reply. He felt totally unable to employ any words which could adequately express how he estimated the kind present they had made him; and, he must say, the more than kind, the affectionate way in which that present had been tendered; he accepted it with the highest gratification—accepted it as an earnest of their good



feelings towards himself, as an evidence that his endeavours had in some measure been successful. As the act was almost unprecedented in any educational establishment, after so short a service, so might it afford reason for higher exertions. Before he sat down, he could not forego the pleasure of assuring them how much he felt he was indebted to those who were fellow workers with him—to the Professors of the College—who he was sure would agree with him, that their duties were rendered comparatively easy, by the gentlemanly conduct of the students themselves, who, feeling that they were treated like gentlemen, acted as became the character, affording a noble and a convincing answer to the absurd libel which asserted agricultural pursuits to be incompatible with gentlemanly conduct.” The Rev. Gentleman resumed his seat amid the most general and hearty expressions of approval. The healths of the Chairman, Professors, and Members of the Committee, &c., followed, and the evening will long be remembered as unalloyed by a single adverse circumstance—remembered, we say it emphatically, as an epoch in the history of the Royal Agricultural College.

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### THE HOUSING AND FEEDING OF CATTLE.

AT one of the discussional meetings of the Highland and Agricultural Society, Mr. Gow, of Raith, remarked on this subject as follows :—

“In the last fifteen years I have housed and fed upwards of 1200 cattle, besides having been intrusted with the constructing of numerous straw yards, byres, &c. In treating of the subjects under discussion, I shall, in the first place, with reference to the housing, consider the merits of three methods, viz., feeding-byres, feeding yards, and feeding loose-boxes. Feeding-byres should only contain one row of cattle, standing crossways in the direction of the side walls. There ought to be passages, both before and behind, for the convenience of the feeder in laying the food before them and clearing the dung away, &c. Troughs at the heads of the animals are also necessary, and these may either be made of pavement, cast-iron, or dressed stone, for containing roots, corn, or cake, with racks immediately above them for fodder. The walls should be a good height for the roof—say eight or nine feet; and the latter, if made of tiles, should have the second row from the ridge raised up four inches at

the lowest end, for the purpose of allowing any heat or steam that generates to escape ; or the roof, if covered with slates, should have ventilating holes, of which there are many kinds, formed along the ridge. Great attention must be paid to the sufficient ventilation of every byre ; for, when such is the case, the health of the cattle is greatly promoted, and, consequently, the profit from feeding proportionately enhanced. To attain this end, I make in the side walls, both before and behind the cattle, windows or boles, with hinge-doors on them, every twelve feet or so apart ; and sometimes, in double-headed byres, in these boles I make a second or false door of perforated zinc, so that the draught can be regulated at pleasure. When a stormy wind is blowing against any side of the byre, the doors of the boles can be shut on that side, and those on the opposite side opened ; or, if an ordinary wind, I open only the wooden door, and allow the zinc ones to be brought into play. With these doors, and a careful feeder to regulate them, the cattle will never be seen steaming and perspiring, as is frequently the case in byres where no attention has been paid to the most important matter of ventilation. In cause-waying byres, a few inches of a fall is necessary to prevent stagnant water from remaining about the feet of the cattle, and a covered drain or gutter behind is requisite for conveying their urine to the tank. The divisions or stalls can either be made of a stone slab or wood. The former I would recommend, as being the most durable, although at first more costly.

I now come to the second method referred to, viz. :—Feeding-yards. When these are intended for six or ten cattle, they should be made with a southern exposure, if possible, and have as much shedding as to allow them all comfortably to rest in. If the east, west, or north sides are not covered by sheds, attention ought to be paid to have these uncovered sides sheltered by walls sufficiently high to protect the stock from piercing winds and storms. Dressed stone troughs for roots, corn, or cake, may be made inside along the back wall ; and boles, as formerly described, with hinge-doors to open outwards, every twelve feet or so, for supplying food, with a fodder-rack immediately above. It is very useful to have a water-trough in the corner of the yard ; for, although seldom required in the winter, while the stock is receiving a full allowance of roots, yet, in spring or summer, when these and other fodder become drier, it may then be found of great service. It is of great importance to the comfort of the cattle to have the bottom of the yard paved, or, at least, with an even surface, to avoid pools of

stagnant water such as are often seen. Let also gutters be placed round the eaves of the house or sheds, to carry away the rain-water, that it may not saturate the manure and wet the bedding of the cattle.

“Feeding loose-boxes now come to be considered as the third of the series referred to, and when these are for one or two cattle, they ought either to be altogether under roof, or have a yard similar in size outside to the space within, and should also be provided with troughs and racks, as in the yard first described. The cattle can either be fed by having a bole through the whole for each box, or by means of a passage along the inside of the walls. Either plan most convenient to the root-shed or store may be adopted.

“Having given a general outline of what I consider to be the best methods of erecting houses of each kind for fattening cattle, I shall now proceed to explain what in my opinion is the most effectual system or plan for fattening, and the food I find best calculated for the attainment of that end in the shortest period. I shall suppose the beginning of October as the time the cattle ought to be housed, and that they are put so as to require at least six months’ feeding, and be worth at that time say £10 or 10 guineas each. For the first fortnight I give nothing but turnips (tops and bulbs), with a regular supply of oat-straw fodder, as well as a piece of rock-salt to each beast. This they have constantly before them while feeding. At the end of the first fortnight, I gave them in the morning, at six o’clock, 2 lbs. of oil-cake, and immediately afterwards as many turnip bulbs as they can eat, taking care that their troughs are empty by eleven o’clock, A.M. I continue the one o’clock bait of turnip-tops and bulbs same as before. At the end of the first month, I feed in the morning as last described, then at one o’clock P.M., give two lbs. of oil-cake each, after which what turnip bulbs they can consume. Before putting in the turnips, I have a basketful of cut oat or wheat-straw to each beast laid on its trough; so that while eating their turnips, they at the same time take up the cut straw, which greatly assists their digestion, as they masticate their turnips better, and fewer of them serve. At the end of six weeks, I give along with the oil-cake in the morning two lbs. of ground corn, &c.—generally oats, barley, and beans mixed; with a supply of turnips and cut straw. The mid-day bait is the same as in the course preceding. At the expiration of two months, I add two lbs. of the mixture to their bait of oil-cake, and at one o’clock in every other respect the feed given is the same as the last. I continue this course until within six weeks from the



time the cattle are supposed to be ready for market. To each two, at suppering time or eight o'clock, I give half a stone of good rye-grass and clover hay, adding one lb. more to each of the two baits of oil-cake—of course, taking care that the turnip roots, which are generally supplied whole or uncut, are all stored and given to the cattle free from frost and exposure to rain. As to the varieties of turnips best suited to the different stages of feeding, I give for the first three months the yellow, and the last three Swedish. Cleanliness is of the greatest consequence, and I am most particular in causing the feeder to have the byres well swept out every time the dung is removed—the troughs especially I have cleaned out twice a day. In six months the cattle with such treatment should be plump, fat, and of excellent quality, ready for the market. If a second lot of cattle is put up, similar treatment should be observed as explained when the cattle were housed in October. Continue the roots as long as they last. Winter tares or grasses should then be ready to supply their place. With the same attention bestowed on the different lots of byres, yards, and loose-boxes, and with regular feeding at the same hour, upon the same food during the six months, and supposing the stock of the same class and equal value when first housed, as well as equally good growers, my experience has shown that universally the byre cattle brought the highest price when sold. I have had many opportunities of testing to my own satisfaction, with such byres and straw-yards as I have described, the merits of these two methods of feeding. I am, however, not so much acquainted with the loose-box system, for although I have had them recently erected, I have not yet had sufficient experience to test their merits with the other two systems. When the winter months were comparatively mild and warm, like our last season for example, I have found that yard-cattle come pretty close to the byre ones in value when sold, but certainly not equal.

“I may here mention, as a corroboration of my views on this subject, that my friend Mr. William Young, jun., of Grange Distillery, told me the other day that he was taking down most complete cattle straw-yards, constructed to hold four large cattle each, and converting them into byres. These yards had a southern exposure, well sheltered, and in every way protected from stormy weather; but Mr. Young said he was perfectly satisfied that straw-yard cattle were, with equal attention, at least two months behind those of the byre in being as fat.

“I am in favour of having about the same extent of housing in byres as in straw-yards and loose-boxes on a farm; because



different methods of rearing, the one may altogether feed cattle, while his successor may both winter and feed some. There might be a deal said on the advantages the byre possesses over the straw-yard for feeding cattle; while, on the other hand, the straw-yard might, in certain circumstances, present others over the byre, were each of their defects and properties thoroughly explained.”—*The Farmers' Herald*, Dec., 1852.

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### ON OBSTRUCTION OF THE BOWELS.

MR. PHILLIPS has delivered, at the Westminster Hospital, a clinical lecture on this subject. After making a variety of desultory observations relating to the causes, seat, and symptoms of obstruction, Mr. Phillips closes with these practical suggestions :

“When we are called upon to treat a case of obstruction of the bowels, we should first carefully examine externally the whole of those regions in which a protrusion of the abdominal viscera may take place.

“Supposing a tumour to be found, our difficulties may not be mastered, because there still remains the important question—Is that tumour the cause of obstruction? It is a question which has been often asked. It has often been answered in the affirmative; its contents have been exposed by operation, and in many instances it has been found to have nothing to do with the obstruction. Still, in the absence of any other apparent cause of the obstruction, we are justified in such a case in performing an exploratory operation.

“Supposing no such tumour to be found externally, we then examine carefully the state of the abdominal cavity. If a tumour be discovered within, it is often very difficult to determine what it is, and what connection it has with the obstruction. Is it intussusception? Is it, as in Reybard's case, a carcinomatous tumour of the intestine itself? Is it an omental tumour pressing upon the canal, as in three cases that have happened within my own experience? Is it a foreign body within the canal, such as a biliary calculus, an intestinal-concretion, a hair ball, hardened fæces, a collection of fruit stones? These are questions of great importance, but of very difficult decision.

“If we are unable, by an ordinary examination, to detect a tumour or fulness, our investigation must be carried

further, and we must explore the terminating portion of the canal. We must examine the rectum with the finger, and if we discover nothing by that means we must make a further examination with a long tube and injections; but, in using the tube, we must bear in mind that it may be arrested by the pouches and folds of a lax rectum, or by the promontory of the sacrum, or by an enlarged uterus; and while we think it is passing freely, it may be that it is only curling upon itself. Much care is necessary therefore in the performance of this kind of exploration; and at best it only indicates that there is an obstruction, but does not reveal its nature, nor the propriety of an operation. Then, with regard to injections, it must be borne in mind that although, when only a very small quantity is admitted, the presumption is that there is an obstruction near the anus, yet it may be that a good deal of fluid may pass through a very narrow opening. When our minds are made up that an obstruction exists, but we are unaware of its seat or its nature, we first have recourse to medical means of relief. And here a perfect comprehension of what means may be properly had recourse to, is of the last importance; because I believe there is no class of cases in which the patient's sufferings are so much aggravated by indiscreet treatment, or I might say by the treatment commonly employed, as in those of intestinal obstruction.

"It is usual to employ, from an early period, the most drastic purgatives, such as croton-oil; and the common result is to aggravate the abdominal pain, and to induce the most distressing sickness sooner than it would otherwise happen. I am confident that, by abstaining from such means, as an ordinary rule, you will not lessen the chance of evacuating the bowels, and you will greatly lessen the patient's distress.

"When constipation has resisted ordinary means, I think the proper course to take is to exhibit one or two full doses of calomel with opium—say eight or ten grains of calomel and a couple of grains of opium—and to exhibit large emollient enemata every six or eight hours. If these means fail, I am accustomed to endeavour to affect the system with mercury, by giving a couple of grains of calomel every two hours, combining with it opium if there be much pain, and associating with it external inunction. Upon what principle this is done it may be difficult to explain, for it can hardly be expected to burst a band or to relax a cancerous contraction; but I believe, if the obstacle be a foreign body, it may be loosened by the increased secretion from the mucous surface; and if it be a recent adhesion, it may be softened and detached by mercurial action. Certain it is, however, what-

ever the *modus operandi*, that marked or even complete relief is often afforded upon the development of mercurial action in the system." (*Medical Circular*, Jan. 1853.)

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## ON THE SPECIFIC GRAVITY OF THE BRAIN.

THE following is the summary of an elaborate paper on this subject, by Dr. W. H. O. Sankey, of the London Fever Hospital:—

"Summary.—The foregoing analyses of 77 observations made upon the specific gravity of the brain, render probable the following general conclusions, viz.:

"That the mean specific gravity of the grey matter, in either sex, is 1·034; that the density of the grey matter is somewhat below the mean in the earlier and later periods of life; that the highest density is met with between the ages of 15 and 30 years in males, and between 20 and 30 years in females; that the density of the grey matter is, in a slight degree, lower in those persons who have died after a long illness, and greater, to a slight extent, in those subjects examined before twelve hours after death than in those examined at later periods.

"That the density of the grey matter may be found in a subject after death to be ·006 below the mean, without any cerebral symptoms having been present during life; but when the specific gravity exceeds the mean by ·006, then one of the following conditions has existed during life, viz., either acute cerebral disease, attended with head symptoms of the gravest character, or chronic disease, (in all the cases analysed of chronic disease of the kidneys,) attended either with no cerebral symptoms or only with slight delirium.

"That the mean specific gravity of the white matter after death is 1·041; that its density varies less than that of the grey matter in the sexes, or in the different periods of life; that it is much less affected by post-mortem changes or length of the last illness.

"That in those cases in which the gravest cerebral symptoms were present during life, the density of the white matter after death may present two opposite conditions—either it may exceed the average, or it may be much below the mean.

"That high specific gravity of both grey and white matter is found in conjunction with those morbid conditions of the

brain connected with hyperæmia, and that a low specific gravity exists in conjunction with the opposite condition of the brain.

“That no relation appears to exist between the specific gravity and the actual weight of the brain.”

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### POINTS OF A GOOD HOG.

“I could caution the reader against being led away by a mere name in his selection of a hog. A hog may be called a Berkshire or a Suffolk, or any other breed most in estimation, and yet may, in reality, possess none of this valuable blood. The only sure mode by which the buyer will be able to avoid imposition is, to make name always secondary to points. If you find a hog possessed of such points of form as are calculated to insure early maturity and facility of taking flesh, you need care little what it has seemed good to the seller to call him; and remember that no name can bestow value upon an animal deficient in the qualities to which I have alluded. The true Berkshire—that possesses a dash of the Chinese and Neapolitan varieties—comes, perhaps, nearer to the desired standard than any other.

“The chief points which characterise such a hog are the following:—In the first place, sufficient depth of carcass, and such an elongation of body as will insure a sufficient lateral expansion. Let the loin and chest be broad. The breadth of the former denotes good room for the play of the lungs, and a consequent free and healthy circulation, essential to the thriving or fattening of any animal. The bone should be small and the joints fine—nothing is more indicative of high breeding than this; and the legs should be no longer than, when fully fat, would just prevent the animal’s belly from trailing upon the ground. The leg is the least profitable portion of the hog, and we require no more of it than is absolutely necessary for the rest. See that the feet be firm and sound; that the toes lie well together, and pass straightly upon the ground: as also that the claws are even, upright, and healthy. Many say that the form of the head is of little or no consequence, and that a good hog may have an ugly head; but I regard the head of all animals as one of the very principal points in which pure or impure breeding will be the most obviously indicated. A high-bred animal will invariably be found to arrive more speedily at maturity, to



take flesh earlier and with greater facility, and, altogether, to turn out more profitably, than one of questionable or impure stock; and, such being the case, I consider that the head of the hog is by no means a point to be overlooked by the purchaser. The description of head most likely to promise or rather to be concomitant of high breeding, is one not carrying heavy bone, not too flat on the forehead, or possessing a too elongated snout; the snout should be short, and the forehead rather convex, curving upward: and the ear should be, while pendulous, inclining somewhat forward, and at the same time light and thin. Nor should the buyer pass over even the carriage of a pig. If this be dull, heavy, and dejected, reject him, on suspicion of ill health, if not of some concealed disorder actually existing, or just about to break forth; and there cannot be a more unfavorable symptom than a hung-down, slouching head. Of course, a fat hog for slaughter, or a sow heavy with young, has not much sprightliness of deportment.

“Nor is the colour altogether to be lost sight of. In the case of hogs I would prefer those colours which are characteristic of our most esteemed breeds. If the hair be scant, I would look for black, as denoting connection with the Neapolitan; but if too bare of hair, I would be disposed to apprehend too immediate alliance with that variety, and a consequent want of hardihood, that, however unimportant if pork be the object, renders such animals hazardous speculations as stores, from their extreme susceptibility to cold and consequent liability to disease. If white, and not too small, I would like them as exhibiting a connection with the Chinese. If light or sandy, or red with black marks, I would recognise our favorite Berkshire.”—*The Farmers' Herald*, Jan. 1853.

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#### TINCTURE OF MASTIC AS A HÆMOSTATIC.

It is stated in a recent number of *Schmidt's Jahrbucher*, that Dr. Frankl has found the tincture of mastic an excellent hæmostatic. He employs it in epistaxis, and in troublesome bleeding from leech bites. It is applied to the points whence the blood issues, by means of a camel's hair pencil. Terzer, a dentist of Vienna, is also reported to have used it successfully in hæmorrhage following the extraction of teeth.

## THE VETERINARIAN, FEBRUARY 1, 1853.

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Ne quid falsi dicere audeat, ne quid veri non audeat.—CICERO.

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To the replies we made, pretty well *seriatim*, to Professor Simonds's suggestion for reformation in our last impression, we would in this add some remarks on the present status and future prospects of the Veterinary Profession as a chartered corporate body. All our experience in civil life appears to have demonstrated to us, that in spite of the barriers which, unfortunately, do attach to professional advancement, yet are the practitioners of our art themselves treated and respected in society in some such ratio as they, from their merits and bearing, are found to deserve. Hardly any individual among us, whose educational attainments are passable, and whose conduct in life is respectable, has any one else but himself to blame if he be not held in the estimation a professional man ought, or can be expected, under the circumstances, to be held in his situation. A medical man may at first look down upon him as being a *horse* (and not a man) doctor; but when he comes to find that, "horse-doctor" as he is, he is capable of rising in society to a degree of scientific eminence approximating to where he himself stands, he will blink at the object of the other's art, and make an associate of one—in the country at least—who can not only act nowise in opposition to himself, but who is really equal to hold converse with him on medical and philosophical topics. After this manner, likewise, will the Veterinarian come in contact with the solicitor; whilst the clergyman of the village (which we will take to be the scene of adventure) will not uncharitably avoid the company of a man whom his equals find reason for his professional conduct and acquirements to respect. With the sporting man in his neighbourhood, the Veterinarian will

have quite a different game to fight. If he be a sporting character himself, as "birds of a feather," others of the same denomination will soon find him out. But, with this "finding out," the Veterinarian must be careful not to go too far himself, or allow of others going too far with him: hints which will be sufficiently understood by those for whom they are intended, and which, if acted duly on, will serve to sustain them in that right way which will not lead them into excesses on the one hand, while their professional repute will suffer no tarnish by it on the other.

Now, that which is true with regard to individuals will hold true in regard to bodies of individuals: the body will be cared for and respected in some such ratio as the persons of which it is composed are themselves worthy of care and respect. One great beauty of the constitution of society in our country is, that there is scarcely any *trade* even out of which a man may not rise into celebrity, or, at all events, respectability, let him but be in every way deserving of it; and where the individuals composing the body come to be truly meritorious, the body will be certain to take its standing, as a body, in society at large, somewhere about where its deserts place it. There will be black sheep in the most respectable bodies, but such are nothing more than exceptions: wherever they do not predominate, they will do but little harm to the corporation at large.

From a consideration of the foregoing observations, it would appear that, to reform the Veterinary body as a profession, care must be taken of the *introductions* that are annually made into it. With whatever aliment the body is supplied, through the same aliment will its different parts thrive and grow, and bring forth fruit, good or bad, as the case may happen to be. There are many uneducated men in the world who, through natural good sense and discrimination, having risen to a certain height in society, maintain themselves most creditably in their elevated positions; but these being exceptions rather to the general rule, cannot be expected to uplift or give *impetus* to the body itself. If young men of character and education be introduced into the veterinary

profession, such may reasonably be expected to bring forth fruits meet for advancement ; but where the opposite class abound, there, may opposite results be looked for. Our profession, as it at present stands, may be regarded as one composed both of men of education and of men without education. In such an incongruous mass it is difficult to create harmony or union. One set will naturally pull one way, one another ; one will follow one course, one another ; habit and thought will take them different ways ; nor will there, but in few cases, or indeed can there be expected to be, cordiality and harmony reigning among them. We know, indeed we see in the medical profession, composed now of educated men almost exclusively—that other causes of disagreement and separation will arise : but, in addition to all this, the veterinary profession has to contend with the radical, though in time removable, impediment, of being made up of men of different and indeed opposite ways of thinking and acting.

Between the different sections of the Veterinary profession, as it now stands—Royal College, Schools, men of the Army, and Body of Practitioners—nothing, perhaps, would tend more to produce a happy and good understanding than union and amalgamation in the transaction of their business. The Royal College wants a college ; the school needs to be in the heart of the metropolis ; it is possible to effect both these desiderata by the erection or taking of some appropriate building in some central situation. Then, would college be school, and school be college ; and both might have its patients, its museum, its library, its place of general resort, &c. &c. When the lease of the present school—which we understand is nearly run out—shall have expired, let such a move be made as will combine these great objects ; and, so far at least, place the Veterinary profession upon a footing which it has never yet had, and never lacked more than at the present moment.

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WHEN we come to turn our eyes back over days gone by, and then to reflect them upon what is passing under our immediate notice at the present day, and think of what now the public or popular opinions are in regard to *glanders*, we shall be struck in our own mind with the surprising changes that have taken place—perhaps with good reason—not in the professional mind only, but in the public as well, on the subject of this disease. The late Professor Coleman declared, in his “Lectures” at the Royal Veterinary College, and everybody, as well without as within the walls of the College, believed him, that *glanders* was a disease *peculiar* to the horse, and his congeners, the mule and ass; and that man and other animals were by nature exempt from its contagion. Does anybody at the present day, however, believe this? Rather, have we not had—Nay! Are we not daily having, too many sad reasons for believing to the contrary? And yet *glanders* among horses, with whom it originated, and to whom, we repeat, it was once thought, exclusively, as a disease to belong, is nothing near so prevalent and destructive as some half century and less ago, it was universally known to be. How is all this apparent incongruity of fact to be accounted for? Did people engaged in looking after *glandered* horses, or in handling and slaughtering and cutting up *glandered* carcasses, make use of greater precautions formerly than now-a-days? Far from it. We do not believe that precautionary or prophylactic means were made use of to anything like the extent they are by veterinary surgeons and grooms and knackers at the present day; and for the obvious reason, because all such persons formerly had a persuasion that no harm was to be apprehended from a *glandered* or *farcied* horse, any more than from one that was suffering, or that had died, from an inflammation of the lungs or bowels. But now all is altered. Veterinary surgeons are apt to feel scrupulous, and even are delicate about opening the nostrils of *glandered* horses; grooms are desired to wash their hands after handling their discharging noses; and knackers cautioned to beware of having cuts or scratches on their fingers. We may truly say—*Tempora mutantur, et nos mutamur cum illis.*

And yet, notwithstanding these fearful changes, which we have shown either the disease itself or public professional opinion respecting it have undergone, and in spite, too,—as we learn from Mr. Martin's letter (at page 504 of our Number for August, 1852,)—of the grievous fact of the sale of glandered horses being an evil growing under our very nose in extent and profligacy, does the law touching an evil of such magnitude remain unrevised, unsharpened, all, in fact, but inoperative and obsolete, as is shown by the case extracted (in the same Number) from the Leicester Journal. A man charged with the grave offence of having exposed a glandered horse for sale, “to the danger of her Majesty's liege subjects,” and “divers (other) horses and cattle,” and fraudulently selling the same as a sound horse, is simply “charged with *misdemeanour*!” What! is it but a “*misdemeanour*” to introduce into a public place—such as a fair or market—a *fomes* of contagion, which, beguiling the common run of persons frequenting such places, may spread among them and their horses a disease of a nature out of the pale of remedy, and but too certainly fatal? Well might Mr. Martin exclaim, “Selling a glandered horse deserves the gallows!” And great reason had he to be dissatisfied, even to disgust, with the result of the prosecution he had been at such pains to institute, not for his own personal benefit, but for the purpose of putting down this most heinous traffic in glandered horses. We would hope, on reflection, that he will not let this be the *last* time he will appear in so laudable and meritorious a character; but will, on the contrary, continue to agitate and exert his powerful interest in so vital a matter until such time as the legislature shall take up the question, and assign to it its proper place and penalty in our statute book.

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## PROCEEDINGS OF THE COUNCIL OF THE ROYAL COLLEGE OF VETERINARY SURGEONS.

SPECIAL AND QUARTERLY MEETINGS OF THE COUNCIL, JANUARY 19, 1853.

Present—Messrs. BRABY, CHERRY, A. CHERRY, ERNES, HENDERSON, MAYER, TURNER, WILKINSON, WITHERS; Professors SPOONER, SIMONDS, MORTON, and the SECRETARY.

Mr. WILKINSON in the chair.

The minutes of the previous meeting were read and confirmed.

At the Special Meeting,—

*Professor Simonds*, pursuant to notice, proposed that bye-law 39 should be altered as follows: "That three members of the body corporate be appointed trustees of the College." He explained the inconvenience of the working of the present bye-law, requiring, as it would, a yearly transfer of the funds of the College from the retiring to the incoming President, and stated that the object of the alteration was the permanent appointment of three trustees, so as to obviate the necessity of a yearly change of names in the Banker's books. Professor Sewell (as President), and Messrs. Field and Robinson had been appointed trustees; and if the alteration was adopted, Professor Sewell would not have to resign his trusteeship when vacating the presidential chair.

The *Secretary* seconded the motion, which passed unanimously.

At the Quarterly Meeting,—

A letter was read from Mr. Hugh Fergusson, of Dublin, requesting, in consequence of a contemplated change of vocation, that his name might be erased from the list of the Members of the Royal College of Veterinary Surgeons.

The letter was ordered to lie on the table.

On the motion of the *Secretary*, seconded by *Mr. Turner*, Mr. W. J. Goodwin was elected one of the vice-presidents of the College.

The *Secretary* stated that he had communicated to the Board of Examiners the order of the Council passed on October 11, "That a veterinary examiner be added to the chemical division of the Board," and that it had been resolved, on the motion of Mr. Percivall, seconded by Mr. Wilkinson, "That Mr. Gabriel take his seat at the Board for that purpose."

The *Secretary*, as registrar, announced the admission, since the last quarterly meeting, of Mr. James Driver Cucksey, of London, and Mr. Thomas Newton, of Balsover, as members of the College, but that no deaths had been officially announced to him.

The *Treasurer*, in his report, stated that there was a balance in the Banker's hands of £413 15s. 8d., the receipts during the past quarter having been £42, the expenses £21 8s.

*Mr. Braby* asked if the trustees appointed at the last meeting had invested the £200 which they were empowered to buy in in the name of the College; and

having received a negative answer, expressed his regret that they had not done so, as the funds had risen since that period.

The Treasurer stated that the matter had been left entirely to the discretion of the Trustees, and he had no doubt they had exercised their judgment in not having made the investment.

The *Secretary* moved for the appointment of a Committee to procure a residence for the College; he said he had had the subject under his consideration, in accordance with a previous order in Council, for some time past, but had been unable to recommend any particular locality to the Council, and he was therefore anxious that a Committee should be formed. He was desirous that eligible rooms should be secured, where a museum and library could be established, and that a resident officer should be on the spot; this he considered more particularly required for the convenience of the country members, for whom at present there was no rallying point to meet and consider veterinary affairs. He had some hundred or two volumes which he was ready to transfer to any library that may be formed, and he knew others who had large numbers of books and preparations who would be willing to give them up for a similar purpose. The Secretary then proposed that Professor Spooner, Mr. William Field, and Mr. Henderson should constitute the Committee.

*Mr. Braby* seconded the motion, which passed unanimously.

*Mr. Mayer* expressed a hope that the Committee would secure apartments as soon as possible, and not wait till they could accomplish everything they might desire.

Cheques were ordered for the current expenses of the quarter.

The *Chairman* named Messrs. Turner, Henderson, and the Secretary as the Committee of supervision, &c., and the proceedings then terminated.

ALEXANDER HENDERSON,  
JAMES TURNER,  
EDWARD N. GABRIEL.

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### NAMES OF GENTLEMEN

*Who passed their examination and received Diplomas as M.R.C.V.S.  
at the last Meeting of the Board of Examiners.*

James Driver Cucksey, London.

Thomas Newton, Balsover, near Litchfield.



THE  
VETERINARIAN.

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DISEASES OF HORSES ENDEMIC TO INDIA.

By J. T. HODGSON.

SIR,—I believe an account of these have appeared before in your Journal, by an intelligent student of mine—Mr. Hughes. However, the accompanying drawings\* will probably better explain their nature, should there be nothing new in my observations.

BURSAUTEE, as the name implies, is a cancerous ulcer which is prevalent during the *Bursaut* or rainy season, and is considered to be of two kinds, simple and curable; and the malignant, supposed to be incurable, or if healed up liable to ulcerate again. The first happens in parts of the skin that are thin and liable to abrasion, as the angle of the lips, the eyelids, prepuce, &c. An abrasion, which at any other time of the year would heal up quickly, will not do so in the rains; even if it should show an inclination to do so to-day, a change in the weather will prevent this the next day. You may guess, when you get up at day-break, what appearance the ulcers will have when you go to the hospital stable. A slight abrasion will, instead of being dry, be moist on the surface, and the surrounding edges and base will be thickened from effusion. You have the ulcer dressed, it appears to be healing again; the closeness of atmosphere, particularly with an easterly wind, and the ulcer again becomes moist on the surface, with pale flabby granulations, which are so prominently above the surrounding skin that it becomes necessary for you to remove these with the knife, in doing which you must be careful not to extend the surface by removing any of the sound skin, because you will then only have a *larger* ulcer, and for this reason the actual cautery and caustic applications are inapplicable. The motive

\* We regret we cannot undertake the engraving of these.—ED. 'VET.'

for their application is removal of the thickened or scirrhus base; but the sloughing away of this would only increase the sore, the base of which would become again indurated, and this would continue over and over again. The knife is the best means, being more under your command in removal of the thickened base, which should be pared away as much as possible; then apply a pledget of tow, moistened with solution of the chloride of lime (1 part to 24 parts of water), and, where you can, employ pressure with a bandage, which should be kept moist with freezing mixture.

During this time you have to attend to the state or condition of the horse; if very fat, give plenty of physic; in short, the best way is to put him in training, he may then be in condition for work at the close of the rains, perhaps before. Be this as it may, you sometimes cannot cure the ulcer until, in the middle of September, the rains cease, and the wind blows from westward or north-west. Then, with the mildest treatment, or even none at all, the ulcers are in one night dry, and in a few days healed; leaving only a thickened base, which, by taking the horse into work, is quickly absorbed. On the contrary, only let the horse stand in the stable because it rains, try your iron, or a lot of confounded quackery that you will be told of, and the ulcers at the end of the rains are in just the same state as the ulcers were in June.

In regard to malignant *Bursautee*, there is no such disease. Were I to show you a horse with a leg like the drawing I send, without the thickened base to the ulcer, you would say "it is *Farcy*!" well, so it is; but from the effect of climate, the season, &c., it has taken on the same scirrhus action at the base, and there is this difference between this ulcer and simple ulceration from abrasion, that it is tuberculous, the tubercles varying in size from millet to grape seeds; sometimes encysted, at others not. Whether or not this peculiar scirrhus prevents it, the absorbent vessels of the limbs do not become affected, and you have not *this appearance* of farcy, and which only is *thought* to be farcy, while this farcy leg is supposed to be a malignant disease peculiar to the country, when inoculation of an ass from a recent spontaneous ulcer, would in a few days prove to the contrary; but I have written enough to guard the freshman in India against such notions.

TUBERIFORM MELANOSIS will be occasionally met with at the same parts, but cannot, if the student has ever read 'THE VETERINARIAN,' be mistaken for this form of cancerous ulcer, bursautee.

If you have not seen melanosis, by going over the livery stables and auctions at either Presidency, you will be sure to find some cases. The tumours, when they do ulcerate, do so by sinus opening, which is different to the open ulcer of bursautee cases, which you will also be sure to see.

Now, into the cure of farcy I am not going to enter; it is much better to try to prevent it. You will be told that "stud bred horses are more liable to this kind of bursautee than others." This is not true. Recollect, the studs are *large* establishments, in which endeavours are made to make them *self-supporting*. Mistaken economy caused the stables to be made too small, and not well constructed as to ventilation, though this has been remedied. Bad management will sometimes occur, and in cavalry corps too; and then, with a filthy stable, you will have farcy (and glanders too): call it "malignant bursautee," or what you please, you cannot in this way change the *characteristics* of the disease.

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## AGRICULTURAL AND VETERINARY SCIENCE.

By M.R.C.V.S.

THE science of Agriculture embraces two great objects: the production of vegetable and the production of animal food. But neither in the one case nor the other will the produce uniformly be of a normal or healthy nature. This liability to anormality or unhealthiness, or disease, must be checked or prevented, or the state itself must be removed—be cured. For these purposes, chemistry and medicine are called in: while the one furnishes the remedy to the soil or the plant, the other supplies a prevention or curative remedy for the disease in the animal. Agricultural chemists will supply the first; Veterinary surgeons must be sent to for the last: and that our science can aid, and materially aid, the farmer and grazier, we think agricultural statistics will unanswerably demonstrate. There has been no fault—there can be no fault—found with Veterinary science; the fault has lain with those who *professed* it—professed it indeed, but never learnt to *practise* it. And this, we say, it is that has brought the Veterinary art into, if not disrepute, at least into too little repute among agriculturists. A tenant farmer is not a man who can afford to throw away his money. No! he must have

—ought to have—his twopennyworth for his twopence. How then can a young inexperienced man, who has but just been shot out of “College,” look for employment among experienced farmers or graziers! This profession of knowledge, really grounded on practical ignorance, it is that has taught even agriculturists to fight shy of the “doctor,” knowing that “an account” must arise from his attendance, and feeling that, in days past, but little good could be attached to the doctor’s attendance. What we say, therefore to our agricultural community is this: “Countenance no Veterinary school in which cattle pathology, as well as horse medicine, is not *practically* taught.” These are the points to which the Chartered College of Veterinary surgeons have all along been directing their endeavours; and such are the desirable ends they will, supported by the agriculturists, be one day able to compass. Hitherto, cattle medicine has been taught by lectures and books: it is high time that those who are intended to exercise it should have opportunities afforded them of learning it *by actual practice*; and the day will come when such opportunities will be provided for them.

### SPEED, OR BLACK LEG.

BY THOS. NEWTON, M.R.C.V.S.

DEAR SIR,—I send you the following Cure for *Speed* or Black-leg, which attacks young cattle, that are from ten to eighteen months old.

I was called on the 25th Oct., to attend a Stirk fourteen months old, the property of Mr. Gascoigne, Langwith, Nottinghamshire. She was down on the left side; a great flow of saliva from her mouth; breathing very laborious; pulse quick; the swelling from the sternum to as far back as the ensiform cartilage and back of the shoulder, half-way up the trunk,—it has a drum-like feel. My advice to the owner was to destroy the animal; but he would not hear of it; I therefore commenced this treatment. I gave sedatives; passed setons through the whole extent of the swelling; and dressed the setons with Linim. Amm.

26th. Stirk, symptoms better; respiration easier, not so laborious; pulse not so quick. Continued medicine. Eats nothing. Give thick oatmeal gruel.

27th. Stirk still continues improving. Give stimulants; stands up.



28<sup>th</sup>. Stirk not so well ; her skin from the sternum to the ensiform cartilage feels deathly, and is very offensive. I laid the part open, and applied a poultice for two or three days. The cellular membrane between the muscles sloughing away ; the muscles betwixt the shoulder and trunk were quite bare of their covering.

30<sup>th</sup>. I dressed the part with Comp. Linim. of Creasote. I supported my little patient with stimulants, tonics, and thick oatmeal gruel.

Nov. 1<sup>st</sup>. Stirk doing favorably ; ruminates ; takes a little bran and linseed cake. Continue gruel. Excised all the dead skin away ; wound healing fast ; continues the Linim. daily.

13<sup>th</sup>. The stirk continues doing well ; eats a few turnips and a little hay ; the skin feels loose ; she licks herself again ; the part is healing fast ; bowels regular.

Dec. 4<sup>th</sup>. The stirk eats everything that is given to her ; there is only a small wound left. Continue dressing every other day.

Jan. 11<sup>th</sup>, 1853. I saw my patient, I am happy to say, quite well, to the great surprise of his owner and myself.

## SHOEING OF CAVALRY HORSES.

The following circular has just been issued by the Adjutant General, from the Horse Guards :

SIR,—It being very desirable that a uniform system of shoeing should be established in the cavalry, and the whole of that important subject having been recently referred to the consideration of a Board composed of officers of great experience in that branch of the service, assisted by two old and experienced professional men, the General Commanding in Chief has been pleased to direct that the following instructions, extracted from their Report, and which embody the whole of their recommendations, be circulated throughout the cavalry, accompanied by duplicates of the pattern shoes, which have been sealed and deposited at the office of Military Boards for general reference and guidance.

1. The shoe is to be bevelled off, so as to leave a space and prevent pressure to the sole.
2. It is not to be grooved or fettered ; but simply punched and the nails counter-sunk.
3. Calkin is to be applied to the hind shoe only, and is to

be confined to the outside heel. The inside heel is to be thickened in proportion.

4. The weight of the shoe is to be from twelve to fifteen ounces, according to the size of the horse.

5. As a general principle, horses are to be shod with not less than *six* nails in the fore and *seven* in the hind shoe; nor is the shoe to be attached with not fewer than *three* nails on either side.

6. In preparing the foot for the shoe, as little as possible should be pared out, and the operation should be confined to the removal of the exfoliating parts of the sole only.

7. Both the fore and hind shoes are to be made with a single clip at the toes.

Viscount Hardinge is aware that peculiarities in the form and nature of particular horses' feet will cause considerable deviations from these instructions in isolated cases; but, in making this communication, I am directed to express his Lordship's expectation, that in general, the shoeing of the horses of the regiment under your command may be executed in accordance with the principles herein recommended, without reference to previous regimental practice, or to the preconceived opinions of individuals on the subject. I am only further to desire that, at the end of three months, you will have the goodness to transmit to this department, for the General Commanding in Chief's consideration, a report of your opinion as to the advantages or inconveniences which may be found to attend the introduction of the system now recommended.

*To the Officer commanding.*

## MAJOR'S BRITISH REMEDY.

*To the Editor of 'The Veterinarian.'*

DEAR SIR,—I have been expecting to meet with a notice in some of the later numbers of 'THE VETERINARIAN' of "Mr. Major's British Remedy." In the absence of any such notice, I venture to make this direct application to yourself upon the subject.

I may premise that, having given the nostrum a trial, it has proved a failure. This result is so contrary to the flattering reports issued weekly, that I think of giving it publicity.

Among the many statements put forth, is one in *Bell's Life* of the 23d ult., running thus :

"Mr. Major has now under his care several horses belonging to officers standing high in the Life Guards regiment, stationed in Albany Street."

Now, Sir, I am not aware whether this paragraph refers to your own regiment the 1st ! but at all events perhaps you may be able to inform me whether it is correct ? and further, I should feel obliged by learning from you, whether the 'Remedy' has in any way been brought under your immediate notice, and with what results ?

Trusting that I am not asking too great a favour,

I remain, Dear Sir,

Your obedient Servant,

WILLIAM CHAS. SIBBALD, M.R.C.V.S.

BIGGLESWADE ; Feb. 3, 1853.

\* \* \* The paragraph quoted from *Bell's Life* is incorrect. Only one horse (belonging to Major Pitt) of the Royal Horse Guards has been subjected to the experiment of Mr. Major, and with this horse it has proved a failure. We should like to have Mr. Sibbald's case to publish.—Ed. 'VET.'

## SHREWSBURY GREAT ANNUAL HORSE FAIR, 1853.

(CAUTION.)

IN consequence of the appearance of certain advertisements in the Shrewsbury newspapers, from persons styling themselves "Veterinary Surgeons," we, the undersigned Members of the Royal College of Veterinary Surgeons, beg to call the attention of gentlemen, agriculturists, and the public generally, to the fact that by a Charter of Incorporation granted to the Veterinary Colleges of London and Edinburgh by her present Most Gracious Majesty, in the seventh year of her reign, it was enacted, amongst other privileges, that "THE MEMBERS OF THE SAID COLLEGES SHALL, OF ALL PERSONS WHOMSOEVER, BE KNOWN AND RECOGNISED BY THE TITLE AND PROFESSION OF VETERINARY SURGEONS." It is thus clear that the assumption of this title by persons not duly qualified, is not only contrary to law, but calculated likewise to deceive the public, insomuch as the

opinions and attendance of such persons cannot be looked upon as *professional*, and their certificates must be consequently worthless.

To remove misapprehension, therefore, and prevent imposture, we the undersigned, Henry Crowe, William Litt, and John Meredith, being all Members of the Royal College of Veterinary Surgeons, consider it at once just to the public, and due to ourselves, to state that *we are the only legally recognised practitioners of the Veterinary Art resident in Shrewsbury*, or within a circuit of at least eight miles, and, consequently, that all other persons practising within this district, and calling themselves veterinary surgeons, are guilty of the gratuitous and unwarrantable assumption of a title and profession to which they have no just or lawful claim.

(Signed) HENRY CROWE, V.S.,  
*Castle Street;*  
 WILLIAM LITT, V.S.,  
*Claremont Street;*  
 JOHN MEREDITH, V.S.,  
*Yockleton.*

Feb. 14th, 1853.

(*From Eddowes's Journal for Shropshire, &c., 17th February, 1853.*)

[I fancy the above is inserted in consequence of the following advertisement having appeared in the paper before, and also in this week's.—W. A. C.]

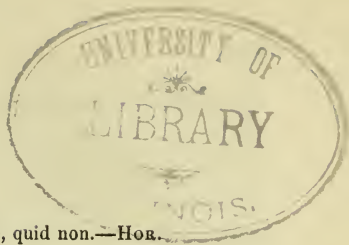
SHREWSBURY GREAT ANNUAL HORSE FAIR, 1853.

“SAMUEL DAYNS, Veterinary Surgeon,

“Begs to return his grateful thanks to his numerous friends for the very liberal support that has been conferred upon him during the last forty years that he has been in business; and begs respectfully to inform gentlemen, agriculturists, dealers, &c., that he will be in professional attendance during the three fair days at the Raven and Bell Hotel, Wyle Cop, when they may rely upon the strictest attention being paid to all cases that may be intrusted to him for his examination.

LONGNOR, Feb., 1853.





## REVIEWS.

Quid sit pulchrum, quid turpe, quid utile, quid non.—HOR.

*Traité de Maréchalerie Vétérinaire; comprenant l'étude de la Ferrure du Cheval et des autres Animaux Domestiques, sous le rapport des défauts de l'Aplomb, des Defectuosités, et des Maladies du Pied.* Par A. REY, Professeur de Clinique, Pathologie Chirurgicale, Jurisprudence, et Maréchalerie à l'école Vétérinaire de Lyon. Lyon, 1852. 8vo, pp. 498. Intricalée des gravures.

*A Treatise on Farriery; comprising the Art of Shoeing Horses and other Domestic Animals, in relation to defects of Aplomb, Malformations, and Diseases of the Foot.* By A. REY, Professor of Clinique, Surgical Pathology, Jurisprudence, and Farriery at the Veterinary School of Lyons. Lyons, 1852. Illustrated with woodcuts.

*Pas de fer, pas de cheval.*

No foot, no horse.

WE have in the above French work a Practical Treatise on Shoeing, in which no one thing appertaining to the subject is not described and explained to us. Its contents display a catalogue of every article and implement used in making and putting on horseshoes, proceeding in due form *ab ovo usque ad mala*. Commencing with the origin of shoeing, we are brought to consider the anatomy and physiology of the organ which is the subject of it. Then we are taken into the forge to look at everything there, not excepting even the iron of which the shoe is manufactured, and the fuel through which the iron is heated. Next we are led to consider the tools used in putting the shoe on, and the nails by which it is fixed to the foot; the kind of foot and the kind of shoe; with the shoes called *pathological*, from being adapted for diseased or malformed feet, or such as give a defective aplomb. Then come before us the means recommended for intractable or vicious horses; the ill-consequences of shoeing, and what kind of shoes they

make use of in other countries (save France); concluding with instructions in shoeing the mule, the ass, and the ox.

Notwithstanding the method of shoeing horses practised in France is different from that pursued by us, or by other countries, still it must be obvious to any one conversant with the subject that the *principles* on which horses are shod must be identical, or rather the same in all countries, since horses' feet do not differ in their orgasm; neither is there any difference in the means of fixing the shoe to the foot, whether that shoe be made of one metal or another, and whether the nail used for the purpose be of this or that shape. Coleman was in the habit of saying, there were but *two* principles of shoeing: one being that the shoe must rest upon the wall; the other, that the sole must not sustain the pressure of the shoe. That the weight of the horse must be borne by the curve in the wall, that being the strongest and most projecting part of the hoof, and the only one which can receive the nails, is certain; but that the sole too cannot receive, under certain conditions of it, pressure also, is now known to be untrue. Perhaps in no country in the world has the art of shoeing had more attention paid to it—more engrossed the time and talent of first-rate men, than in this; and yet by the French we are thought to be very inferior to themselves. In fact, inferiority in the art is by the two countries—England and France—mutually recriminated one upon the other. Before we have finished the inquiry we are now engaged in, we will endeavour to throw some light on this controversy.

It is not our intention so much to critically examine the work before us—one that is held as standard authority with the nation in which it has been produced—as to glean from it some interesting sketches on subjects in which we all feel deeply concerned for the fate often of our best horses.

“It is pretty generally admitted that the art of shoeing holds no very remote date. Ancient authors date it no further back than the fifth century. Rey divides its history into three different epochs: the first including the period of its non-existence, during the time of the Greeks and Romans, who did not practise it, though the Romans, under exceptional

circumstances, made use of some sort of shoe. During the second period it was that horseshoes were nailed to the foot, dating from the invasion of the south of Europe by the barbarous tribes of the North. Rey's third epoch comprehends the later ages by whom the horseshoe has been brought to its present state of perfection. Bourgelat and Lafosse thought that the Greeks were acquainted with the art of shoeing horses, the former citing a passage from the Iliad in support of his opinion. The probability seems, however, that when Homer made use of the expression *χαλχοπους*, *brass-hoofed*, he meant to say their feet possessed the hardness of brass. As Bracy Clark, with reason, says, 'had he meant otherwise he would, no doubt, have written hoofs *furnished with*, or armed with, brass, not *feet of brass*.' Besides which, had the Greeks been acquainted with shoeing, they would, as, they did all other arts, have brought it to perfection. And, moreover, Xenophon, one of the earliest writers on the education of the horse, makes no mention of shoeing, though he speaks of horses wearing shoes on long journeys, resembling those of the soldiers, which they called *εμβραι*, a kind of *felt-boot*. This historian wrote five hundred years before Christ. The Romans, the same as the Greeks, knew nothing of shoeing, though they had boots or sandals for occasional use. Neither Columella nor Vegelius make any mention of any other shoe than the *sparcia*, a sort of broom or rush-boot."

According to Bracy Clark, to whose work we now turn, shoeing 'was probably brought into use first by some of the barbarous nations which overran that (the Roman) empire. The earliest nailed shoe of which there is any record was found at Tournay, in Flanders, buried along with him in the coffin of Childaric, king of France, who died in 481; and Montfaucon, in his 'Antiquities,' states that this shoe was with the nail-holes in it, and that it fell to pieces on being handled.\* The first clear and positive intimation of the modern shoe, at present known, is in the ninth century, in

\* 'Essay on the Knowledge of the Ancients respecting the Art of Shoeing the Horse,' &c.

the reign of the Emperor Leo, of Constantinople, (perhaps Leo VI, who died A.D. 911,) described in the 'Tactica' as inventors of horse furniture of this potentate, as stated by Buckman. The words are:

'That is, '*capistra, ferra lunatica cum clavis eorum*:' halters for fastening horses, with crescent-figured irons and their nails. With William the Conqueror the art of shoeing appears to have come into England; he gave to Simon St. Liz, a Norman, the town of Northampton and the hundred of Fulkley, then valued at £40 per annum, to provide shoes for his horses; and Henry de Ferrers, who came over after him, he appointed superintendent of the shoers, whose descendants, the Earls of Ferrers, had six horseshoes in the quartering of their arms.'—(*Loc. cit.*)

"From very old days horseshoes have been nailed upon portals or gates, stable-doors, and churches, with the imagined object of keeping out sorcerers or witches, &c. who amuse themselves."

Coming to Rey's "third epoch" of this obscure and curious history, we pounce at once upon modern usages in this art; and here we find the greatest differences still prevailing among different countries, and even in different parts of the same country. "Rey asks if there are not still, in this country and France, parts where *farmers refuse to have their horses shod?*" To this, for our own part, we should answer, No—though there may be in France. At Vienna and Berlin, and other principal towns of Germany, veterinary schools have greatly improved the shoeing, though in the environs of such places the art still remains in a barbarous condition. In France, every shoeing-smith makes his tour of the country, and, if he possibly can, visits Paris, where he picks up some scientific principles, on account of which he becomes afterwards valued in his sphere of employment. Shoeing is now regarded not as a mere mechanical art, but is studied and made perfect in regard to its operations on the *aplomb*, as well as on the malformations and diseases of the foot.

We shall pass over the chapter on the anatomical study of the Foot, which presents nothing beyond ordinary detail, to look into the one that follows it, treating of the Elasticity of



the organ. M. Rey suggests no doubts concerning the foot's elasticity. He considers there are ample proofs of it; though those which he adduces he derives from the authorities usually now cited in its favour, and particularly refers to the recent work of M. Bouley. Bracy Clark's opinions about it, he says, have met with contradictions.

Speaking of the functions of the wall or crust, M. Rey "asserts that the inner quarter of the hoof is not only straighter—less curved outward—than the centre, but is higher and deeper than it, and so tends to tilt the foot outwards in its tread, and thereby to throw more weight upon the outer quarter (which is the stronger one) than upon the inner. In feet whose walls are rather perpendicular than oblique, elasticity is all but annihilated, which renders progression painful, the heels being high and contracted. At the same time we must admit, as an exception, mules' and asses' feet, in which the crusts are frequently perpendicular; though *they* suffer nothing in consequence of this, because their coffin-bones are but imperfectly developed—*parce qu'ils ont l'os du pied peu développé*. The interruption of the wall posteriorly, where its divisions separate to form the bars, evidently permits of the dilatation of the foot from before backwards, as well as in the lateral direction.

"The sole descends from pressure, and in its descent forces out the inferior border of the wall, and so expands the foot. Thus the sole plays an important part in the dilatation and contraction of the foot. At the time the foot is off the ground, it presents its greatest degree of incurvation. But, on the contrary, when the foot is down, this incurvation becomes diminished; while the bars diverge along their inferior border, and approximate along their superior. The sole is more concave in the hind than in the fore foot, whereby it tends, no doubt, to the augmentation of that force of impulsion, which these feet are designed to impart to the body. M. Auber has remarked, that if the sole be filled full of clay, the mass will suffer no displacement by the setting-down of the horse's foot, proving that it does not sensibly descend under the weight, the effect of which is carried to its point of union with the wall. But this opinion, which

has a tendency to raise a doubt on the movement of the sole, is somewhat exaggerated. For, in point of fact, let us observe what takes place in a flat foot after it has been some time shod, and we shall perceive upon the upper surface of the shoe evident marks of friction, the products of the descent of the sole.

“The frog has more suppleness and elasticity than other parts of the foot. By abutting against the sole, it moderates any violent reaction occasioned during progression, while at the same time it seems to dilate posterior parts of the foot, to widen and expand them.”

The cartilages of the foot play an important part in the foot's elasticity. They offer most resistance (or substance) anteriorly ; posteriorly they become assimilated more with the fatty frog. During the time the foot is down, the hoof spreads inferiorly ; contracting, at the same time, superiorly, and compressing the cartilages. But when raised, these organs return upon themselves, and concur in straightening the wall, and bringing it back to that cylindrical form we commonly see it of. For a long while, shoeing has been accused of destroying the elasticity of the foot, by giving rise to ossification of the cartilages through the state of inaction into which they are thereby thrown.

“We must not, however, rate too highly the elasticity of the foot, since with age it grows less, and by shoeing in the course of time becomes destroyed altogether ; and especially in feet that are malformed and flat below.”

*(To be continued.)*

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*Farmer's Companion and Horticultural Gazette.*

OF this publication (issuing from Detroit, Mich. America, at an extraordinary low cost,) the First Number has just reached us. It professes to be “a Practical and Scientific Agricultural and Family Journal *for the West* ;” the Editors' reasons for appearing among the number of agricultural journals already in existence “in one word” being—“that experience has proved that EASTERN publications are but slightly adapted

to *our* wants in a new country (America), and farming being a *practical art*, can only be properly taught by those who are *practical farmers themselves*, and who are *personally* acquainted with the difficulties and wants of their readers. Are not (the Editors ask) these sufficient reasons?" If well founded, we feel no hesitation whatever in answering "they are!" We can readily understand how that Eastern publications may be ill-adapted or altogether unadapted for Western purposes; and we will take our brother editors' words for Western productions of the sort being, like too many of our Eastern, deficient in that sterling merit, practical worth. Therefore it is that we believe their "reasons" *to be sound*. To give the readers of 'THE VETERINARIAN' some sample of the fruits of the journal, we on the present occasion make choice of a couple of extracts more peculiarly fitted for our own readers :

#### GRADE, CROSS-BLOOD, AND FULL-BLOOD.

"When Talleyrand the celebrated French Politician, declared that 'words were given to us to *conceal* our thoughts,' he probably described with accuracy his own use of them, and that of many of his own profession. But to an honest straight-forward man, words are often troublesome in concealing facts from *him*; and, in truth, we incline to believe, that half the troubles, controversies, mistakes, and hard feelings in life originate in our understanding words in a different sense from those who use them. That this is the case with the words which we have placed at the head of this article, every Agricultural Fair can witness. At the last held in Detroit, we had the honour of being on the Committee on Horned Stock, including the above kinds; and both there and in other directions we were painfully convinced that these words were not understood. We say *painfully*, because there were some instances where, owing to this mistake, the articles had been wrongly entered for a premium; the rules obliged us to accept and judge of them as entered; and we could not help sympathising with those who, by a mere verbal misunderstanding, lost the chance of a prize. Our fairs are social and good-natured opportunities for competition; the money received by the fortunate is but a trifle; the honour and the satisfaction of knowing, and letting our neighbours know, that our endeavours to improve have been crowned with success, are the chief things, and that they should be lost after so much trouble, by so trifling a mistake,

is vexatious indeed. But an agricultural paper is intended to *benefit*, as well as instruct and amuse its readers; and we shall endeavour so to explain these terms, that henceforth our subscribers may march confidently to the grounds, assured that, in this particular at least, they are safe.

“Viewed with the eye of a Farmer, all kinds of live stock may be divided into *four* sorts: 1, Common; 2, Grade; 3, Full-Blood; and 4, Cross-Blood. What the *common* are, all can understand. They are those specimens which, unfortunately, are by far the most numerous among us, which have no distinguishing characteristics, no peculiar good qualities, no history or pedigree, and we are ignorant from what and whence they sprang. They are adapted for life, for increase, and for their own enjoyment, but very slightly, *when compared with others*, suitable to the use of man. Now for, perhaps, the two last centuries, wise and enterprising individuals have perceived that every variety of live stock which we possess might be rendered fitter for the peculiar use for which we intend it. Is it a horse we want for speed, or draught? an ox for eating or for working? a cow for fattening or giving milk? a hog to grub up the weeds for a yard’s distance on the other side of the fence, or for pork and lard? By studying natural history, by minute observation of those small facts which are always before us, but which most people overlook, these wise men succeeded in producing animals for all useful purposes. Nothing can be more dissimilar than the race-horse, and the elephant-like animal that solemnly draws two tons weight in the streets of London;—nothing more unlike than the “land alligator,” and the full bred Berkshire or Chinese hogs; and yet originally they all sprung from the same pairs of ancestors. After many trials, some failures, and general success, the desired end is supposed to be attained; improvement can go no further in that direction; or some one individual male animal is produced which includes within itself every good quality, and has the faculty of impressing these qualities on its produce for all succeeding generations. A *Breed* is thus established; and every individual of that breed, containing the same blood, kindred one to another, with the same peculiarities, are **FULL-BLOOD**. Thus the full-blood English horses, are supposed to have been on their dam’s side from the old-fashioned common indigenous English horse, the best specimens that could be found, but on the sire’s side from Arabian horses. Breeding in with the mares of this descent, but with different Arabian horses, the breed was at last established; and it is said that every full-bred race horse



in England can be traced to one of four or five celebrated horses which existed two centuries ago : and none are full-blood except for many generations the same blood flows in their veins. One single cross of a common animal breaks the charm, and it is no longer full-blood. What then is it? It is **GRADE**; that is a mixture, *however slight*, between the perfect, and the common or imperfect breeds. The word is probably derived from the latin, *Gradus*, 'a degree in consanguinity,' or the French *Grade*, 'a degree of rank,' the inferior having taken a step upwards, as we say a young man at College *graduates*. The word is not to be found in English dictionaries or books. Except it may chance to be a local provincialism among the many dialects of the mother country, it appears to be unknown there.

"All animals, therefore, that are a mixture, if only by one cross, and that within several generations, between an individual of an improved breed of pure blood and a common one, on either the male or female side, is, in strictness, *grade*; but probably among us, one cross two generations back might not be considered so, or not be perceived. Thus I have a cow which I believe to be three quarters pure Durham and one quarter common; and it has a calf by a full-blood Durham bull; that calf is *not* full-blood, it is still a *grade*; the common-blood cannot be extinguished for several generations; if, indeed, *in practice*, it ever can be. Some rule, however, ought to be laid down by competent persons on this subject. This word is likewise *practically* used by some to define the admixture of pure stock among sheep, where they are of widely-different families : as for instance of a long-wooled Leicester and a Merino ; but we have our doubts as to the correctness of its use in this sense ; though we have no doubt at all of the exceeding impolicy of making such a cross.

"Lastly, the **CROSS-BLOOD** is the admixture between two full-blood animals of different breeds. Thus a calf got by Mr. Askew's, of Malden, C. W., noble Durham bull, on Mr. Smith's of Coldwater, beautiful imported Devonshire cow, would be a *cross-blood*, and one which we should greatly like to possess, as owning perhaps more good qualities for *common practical* use than any pure breed, or other admixture of breeds. However, this division is so plain that nothing more need be said, except that we hope, before ten years are passed, every farmer in Michigan will have his farm well stocked with either full-blood, or high grade animals—(the latter for most of us, perhaps, the most profitable *at present*, but to have them, we must have pure-blooded males,)—and

that the *common* stock will become so *uncommon* that to find a specimen we shall have to scare up, in some out of the way corner, where he has retired in shame, the man who does not take and read an agricultural paper."

#### HINTS ON BREEDING HORSES.

"1. '*Like will produce like.*' The progeny will inherit the qualities, or the mingled qualities of the parents.

"2. There is scarcely a disease by which either of the parents is affected, that the foal will not inherit, or at least the predisposition to it. The temper is generally taken from the mare.

"3. Peculiarity of form and constitution of *both* parents will also be inherited. However good may be the sire, every good point may be neutralised or lost by the defective form, or want of blood of the mare.

"4. The excellence, health, and age of the *mare* are points of quite as much importance as that of the *horse*. Out of a poor mare, let the horse be as perfect as he may, a good foal will rarely be produced.

"5. The mare's carcase should be long and well rounded, to give room for the growth of the foetus; and yet with this there should be compactness of form and shortness of leg.—The shorter the leg from the knee to the hoof, the faster and more valuable the animal will be.

"6. A mare should always be *comparatively* larger than the horse. The reverse will produce long-legged, narrow-chested animals. This is a rule in the good breeding of all sorts of stock. An overgrown male is always objectionable.

"7. The chief point to be considered in the horse is *compactness*—as much goodness and strength as possible, condensed in a little space. Next to this *the inclination of the shoulder* should be regarded. A huge horse, with upright shoulders never got really valuable stock, except for slow heavy draught.

"8. For a month or two before foaling, the mare should be allowed somewhat better food, and if worked at all, moderately and slowly.

"9. As soon as she has foaled, she should be turned into a well-sheltered pasture, and be taken in during storms. If the grass is scanty, she should have two feeds of good bran or grain daily. Nothing is gained by starving the mother and stinting the foal at this time.

"10. Let the foal eat grain with its mother as soon as it will do so.

“11. In five or six months, the foal must be weaned ; and put either into a yard where it can get shelter, or into a loose stable. Its food ought to be increased in goodness, and a feed daily of bran mixed with oats, made into a mash with warm, *not hot*, water, for the first week or two, will produce a good effect. An ounce of salt should be mixed with each mash.

“12. There is no principle of greater importance than the liberal feeding of the foal during the whole of his growth, and at this time in particular. Bruised oats, corn, and bran, in about equal proportions, should form a considerable part of his daily food. Clover hay is better for him than *timothy* (?) hay ; and better still if it is cut and mixed with the grain. The colt should have room to move about, but be always sheltered in cold and stormy weather. If possible, give him roots occasionally, during the winter.

“13. The process of *breaking in* should commence from the very period of weaning. The foal should be daily handled, partially dressed, accustomed to the halter, led about, and even tied up. The tractability, good temper, and value of the horse, depend more upon this than most farmers are aware of.

“14. By following these principles you may depend upon breeding valuable animals. There is a little more trouble and expense than in the common mode of letting the colt take care of itself ; but you will find, when you come to use or sell, these will be paid an hundred fold. Our common Canadian ponies are examples of what horses come to, both in figure and temper, when left to themselves. Their ancestor, the Norman horse, is the most valuable animal in the world.”

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## VETERINARY JURISPRUDENCE.

### GUILDHALL.

*Alfred, George, and Richard Reynolds*, in the employ of Messrs. Howe and Hillier, farriers, of King's Arms-yard, Little Whitecross Street, were summoned on Wednesday, February 2, at the instance of the Society for the Prevention of Cruelty to Animals, for beating and otherwise ill-treating a horse, by which its death was occasioned.

Mr. Thomas, the solicitor to the society, prosecuted the complaint ; and Mr. Morgan, of the firm of Humphreys and Morgan, appeared for the defence.

It was suggested that, as there were three separate summonses, the evidence should be taken against the whole of the defendants, as though it was one case.

Mr. Morgan acceded to this arrangement on the understanding that he should be at liberty to call any two of the defendants as witnesses in favour of the third.

Mr. Thomas then stated that a black Belgian horse was consigned to a party in London, and was standing at Messrs. Rymill and Gower's repository, from which place it was sent to King's Arms-yard to be fresh shod. While there, the defendants, George and Richard, were seen to belabour the head and body of the horse with thick, heavy sticks, until quite exhausted, the animal sunk on its knees. It was then knocked on its side, when one of the defendants, seizing a sledge hammer, delivered several severe blows upon the horse, just under the flank, from the effects of which, after a few convulsive struggles, the horse almost immediately died. The owner had been satisfied for the loss of the horse, but the society thought it a case for public inquiry, and therefore obtained summonses against all the defendants, Alfred being present during a great part of the time.

Mrs. Sarah Alviston, of 10 King's Arms-yard, stated that, on Monday, the 17th of January last, she saw the defendants, George and Richard, in the shed where the horses are shod. Her attention was drawn to them by hearing the sound of blows in the yard, and, on looking out, she saw Richard standing near the head of a horse, and holding a rope by which it was tied to a beam, and George was beating the horse with a stick about twice the thickness of a broomstick. He continued striking the animal on the head and shoulders for a few minutes, and then Richard took up the same stick, and commenced beating the horse, while George stood near its head. This lasted about five minutes, and then George and Richard took it in turn, and ultimately they both beat the horse at the same time, and continued to do so until the horse fell on its knees. Richard then struck it several times on the shoulder, and it rolled on its side, when he took up a hammer, and struck it three times on the ribs, at the same time saying, "That'll have him up." The horse struggled violently for five minutes after this, and then expired. They endeavoured to restore the horse, by pouring water down its throat, but without success. They then proposed bleeding the animal; but their father told them it was no use, as the horse was dead. Alfred was present, but took no active part in ill-treating the horse.

Cross-examined—The horse's head was tied close to the



beam. It plunged violently many times while it was being beaten, and reared a little on its hind legs; but those signs of excitement in the animal were evidently the result of pain, and not from madness. She did not notice any disposition in the horse to bite or injure any one near it. It threw itself down several times during its struggles. She had lived in the yard nine years, and had frequently witnessed similar acts of cruelty perpetrated by the defendants; and it was only a week or ten days ago that she was obliged to threaten to give them into custody for cruelly beating a horse.

Abraham Hill, a green-grocer, of 21, Whitecross-street, said he went into King's Arms-yard on the day in question, and saw George and Richard beating a horse with sticks. George had what was called a "twitch," about three or four feet long, and an inch and a half in thickness, in his hand, and was striking the horse about the head and ribs as hard as he could hit. He afterwards saw the horse kicking on the ground, in the agonies of death.

Cross-examined—The horse was not kicking when witness first saw it being beaten. It was a little restive, on account of the beating.

James Alviston, aged 13, said, he saw the defendants, Richard and George, beating the horse on the back and under the flank. The horse fell on its knees, and Richard struck it two or three times with a stick, and it rolled over on its side. Richard then took up a hammer, and gave the horse four blows under the flank, at the same time saying, "This will have the — up." They then poured water down its throat, and threw some over its head; but it laid down and died soon after.

Reuben Alviston, aged 15, said he was not present all the time; but he saw George and Richard beating the horse with sticks, and he also witnessed the use of the hammer by Richard.

Mr. Morgan admitted the general treatment of the horse, with the exception of the use of the hammer; but said he was prepared to prove that the defendants were justified in beating the horse as they had done to protect themselves from its violence. He was also in a position to show that the horse died from inflammation and effusion of serum on the brain.

Sir James Duke said the horse was tied to a beam, and what better security could there be from its violence than to get out of its way.

Mr. Morgan said the horse was tearing up everything around, and injuring the other horses.

Sir James Duke asked if there was any witness present to speak to the state of the horse before being brought to King's Arms-yard.

Mr. Morgan said there was not, as it was not important to the defence. The horse was suffering from madness, and the violence complained of was the result of a paroxysm of the brain, which might come on suddenly at any time, although the horse might previously have been apparently quiet and docile.

Sir James Duke thought that it was highly necessary some evidence as to the general state of the horse should be given.

The summonses were then adjourned for that purpose; and on February 8, the inquiry was resumed before Sir Peter Laurie, when Mr. Thomas again appeared for the Society, and Mr. Ribton for the defendant.

James Beeson, a veterinary surgeon, of 35 years' experience, examined the horse in question after death, and found the brain in a very diseased state. A quantity of serum came from it, which was probably caused by over-exertion. The disease appeared to have been of three or four months' standing, and it could not come on suddenly. Belgian horses are more vicious than others, and are sent over to this country, ten or twelve years old, without being shod. He had seen the owner of the horse, and he said distinctly he had not been paid for the loss of the horse, and neither did he expect any compensation.

Thomas Moore, a horse-slaughterer, took the skin off the horse, and saw no marks of violence upon the body. If cruelty had been used, bruises would have been visible beneath the skin.

John Charlish was present in the shed in King's Arms-yard, and witnessed the whole occurrence. The horse plunged violently, and nearly kicked the elder defendant on the head. Richard nearly got squeezed against the bar, but fortunately avoided the horse by slipping under the bar. The blows were not very hard; in fact, not more than he (witness) could have borne.

Sir Peter Laurie said the witness must be a regular rhinoceros if he could bear such blows.

Witness was confident that no hammer had been used by any one on the horse. There was no "twitch" used.

Mr. Reynolds, sen., gave similar evidence, and added that no complaint had ever been made before of horses being ill-treated by him or his sons.

Sir Peter Laurie said the case was very clear. The defendants had lost their temper and the management of the

horse at the same time, which led to the acts of cruelty already sworn to. However, it was shown that Alfred left as soon as he brought the horse into the yard, and he would, therefore, dismiss the summons against him; but with regard to the other defendants, he would fine George, he being the eldest, 50s., and Richard 10s. He was lenient with them, because he thought they would not be guilty of similar misconduct again.

Mr. Thomas said, as the "Society for the Prevention of Cruelty to Animals" never sought to appropriate any portion of the penalties, he had to ask the worthy alderman, in the present instance, to order the fines to be put in the poor-box of the court.

Sir Peter Laurie said—Certainly. He had great pleasure in attending to such a request, coming from Mr. Thomas, who, as the representative of a very useful Society, prosecuted these cases for the public benefit. He wished the Society would put down steeple-chases.

Mr. Thomas said he wished the Society could do it; but there were much greater obstacles in the way of their prosecuting for that kind of cruelty to horses than in most cases.

The fines, which, with the costs, amounted to £3 11s., were then paid.—*Morning Post*, Feb. 9th, 1853.

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COURT OF COMMON PLEAS.—*Guildhall, Feb. 14th.*

*Warton v. Flowers.*

THIS was an action on the warranty of a horse, sold by the defendant to the plaintiff, and warranted to be sound, and quiet to ride and drive. The defendant pleaded, first, that he did not warrant the horse; and, secondly, that the horse was sound. The plaintiff, it appeared, is a solicitor, in Moorgate Street, living in the country, and the defendant is a farmer at Epping. The plaintiff wanted a horse, in May, 1852, and, by accident meeting with Mr. Cousins, introduced him to defendant, who had a grey horse to sell. The plaintiff examined the horse, and found that he had a splint on the near fore leg. Cousins said "it is nothing," and plaintiff agreed to purchase the horse, with a warranty, that he was sound, and quiet to ride and drive, for £55. Before he paid for the horse, he put a copy of a receipt and a warranty to the defendant that the horse was sound, and quiet to ride

and drive. The defendant, however, sent him back a receipt on unstamped paper, and a warranty omitting to state that the horse was sound. As the learned judge in summing up remarked, this might arise accidentally from the defendant being a farmer, and one of a class supposed only to concern themselves with agriculture and the price of wheat, and not to be versed in the concerns of the world. Eventually, however, on the plaintiff insisting on a proper receipt and warranty, a stamped receipt and warranty that the horse was sound, and quiet to ride and drive, was written. In ten days the horse, on being worked, turned out lame, and was sent by the plaintiff to the Veterinary College, when Mr. Spooner, the professor there, examined his feet, took off his shoes, and examined his legs, and was of opinion that the lameness proceeded from the splint, and that the splint was of some months' standing. The plaintiff then sent notice to the defendant to return him his money and take the horse back, or he would send him to Aldridge's. The defendant then sent a Veterinary surgeon, Mr. Webb, to look at the horse, and he expressed his opinion that the horse wanted shoeing, and that his hoofs having grown, his heels were let down, and his navicular joint bruised by the pavement, causing him to go lame. The defendant refused to take the horse back, and the plaintiff sent him to Aldridge's, where he was sold for 24 guineas, without warranty. The plaintiff then brought an action for the difference of price he had given, and the proceeds of the sale of the horse, deducting expenses, and also for his keep up to the 19th June, when the action was commenced.

For the defendant, it was contended that the facts were stronger than Mr. Spooner's opinion; that the horse had been bought by a dealer at Aldridge's, and sold to a potato merchant for £35, who, having worked him for three months, sold him to a gentleman in the country for £35 without warranty, and that he had never gone lame since he was sold by the plaintiff. The early history of the horse was also proved. Prior to his sale to the plaintiff, he had been worked a short time in the Epping Coach, 18 miles a day, and then had the splint and never went lame. Witnesses were called to prove these facts.

Mr. Lush having replied.

His Lordship summed up, and directed the jury, that if the horse had a disease when sold which would render him unfit for ordinary work, without going lame, he was unsound, and it was not material whether he was lame when sold or not. If the lameness was produced by the splint, the plaintiff



was entitled to recover. On the other hand, if they were of opinion that Mr. Webb was right in supposing the lameness to be caused by want of shoeing, they must find for the defendant.

The jury turned round in their box, but not coming to an agreement, his Lordship asked them if they would wish to retire.

The Foreman—Eleven of us are agreed for the plaintiff.

Juryman—I believe the horse to be sound, and I will never give in to the day of my death to that verdict, because of my oath.

His Lordship would not wish to consult together so long as that. They had better retire and talk it over.

The jury eventually found a verdict for the plaintiff—Damages £32 6s. 9d.

## Foreign Department.

### OFFICES AND DUTIES OF VETERINARY SURGEONS IN THE FRENCH ARMY.

#### *Principal Veterinary Surgeons.*

*Art. 1.* The principal veterinary surgeons are to occupy themselves, in a general manner, in every matter touching the conservation of the health of horses of the army, and the treatment of their diseases.

*Art. 2.* Whenever any diseases of an epidemic or contagious character break out among the horses of cavalry regiments or troops, or in cavalry establishments, it becomes their duty to visit them, in order to learn the local causes of such, and to suggest the means of combating their consequences. On their return, they will render an account of their mission to the proper authorities.

*Art. 3.* The principal veterinary surgeons are liable to be temporarily attached to inspecting generals of the cavalry and remounts.

#### *Committee of Hygiene.*

*Art. 4.* One of the principal veterinary surgeons is attached to the general *état-major* of the army of Algeria; the two others are members of the committee of *hygiene*, attached

to the department of the Secretary-at-War. This committee, presided over by a general officer, acting or not, is composed, besides, of two superior officers and six civil veterinary surgeons, or six individuals eminent in the natural sciences. The president and ten members of this committee are nominated for three years. The functions of the committee refer to all questions that may be submitted to them touching the hygiene and disease of troop horses. They will centralise the annual reports of veterinary surgeons, and classify them in the order of their merit. They will likewise make an appreciation of papers in which veterinary surgeons may have treated questions of hygiene and veterinary medicine, which are every year subjected to *concours* on the suggestion of the committee.

### *Promotion.*

*Art. 5.* The classification, by order of merit, of veterinary surgeons proposed for advancement, is made yearly by the cavalry committee, at the same period as candidates offer for the various grades of superior officers.

### *Committee of Purchases.*

*Art. 6.* The principal veterinary surgeons, or others who are members of the committee of Purchases, have a deliberative voice therein.

*Art. 7.* In cavalry regiments and establishments, veterinary surgeons are especially charged with the treatment of diseases of the horses, on which they practise, at their own responsibility, all operations they may consider requisite for their cure. They are to neglect nothing in the conservation and re-establishment of the health of the horses, and, above all, in the preservation of them against contagious diseases. They are to draw up reports of autopsies of all horses dying either through accident or disease, with the view of ascertaining the cause of dissolution. These reports will be annexed to those made by the assistants (*sous-intendants*), in justification of the loss of the horses.

At a *depôt*, and when the regiment is all together, they are to propose to the commanding-officer, through the captain's instructions, such hygienic measures as may appear to them of a nature to conduce to the conservation of the horses in general: should the squadron be detached, such recommendations will pass through the *chef d'escadron* for the week.\*

\* This part of the order has since been rescinded.

They have the charge of the daily direction of the infirmary, under the surveillance of the *capitaine d'instruction*.

They give their gratuitous services to officers' horses, and those of persons regularly attached to the regiment, in cases where such horses are their personal property, or when they are the property of the state.

The same obligation extends to officers belonging to the *état-major*, to infantry officers' horses, and, lastly, to that of the companies or brigades of gendarmarie of the locality of the garrison in which the veterinary surgeons are quartered.

*Art. 8.* In case of emergency or embarrassment, any important operation for the treatment of horses in the infirmary will not be performed but by the veterinary surgeon, or under his direction, with the understood authority of the commanding officer, of whom permission will be asked in the daily report.

*Art. 9.* One veterinary surgeon is always present at evolutions, marching orders, and exercising orders.

#### *Stable-Hours.*

*Art. 10.* Every morning, at the commencement of the stable-hour, the veterinary surgeon, or, in his absence, his assistant, will attend at the infirmary to visit the sick horses, and administer to each of them what is required. At the conclusion of the stable-hour, he will visit such indisposed horses of the squadron as may be brought to him under the surveillance of the farriers of the week.

The veterinary surgeon (or in his absence his assistant), gives in a report, rendering an account of his duty to the *chef d'escadron* for the week.

*Art. 11.* One of the veterinary surgeons will attend the stables and examine the horses, more particularly such as are pointed out to him as being unwell, or apparently so. He will admit into the infirmary any that may seem to call for especial care, and he will make known to the captain such as appear to require separating from the others in order to be treated by him.

Should the horse admitted into the infirmary be afflicted with contagious disease, the veterinary surgeon will release him from all duty and grooming, certifying the same to the squadron, and place him in a situation by himself. At the conclusion of the stable-hour, the veterinary surgeon will report the circumstance to the adjutant-major of the week.

*Daily Report of the Sanitary Condition of the Horses.*

*Art. 12.* At the dépôt, or where the entries required are in one place, the veterinary surgeon will make a special report daily to the commanding officer, through the *capitaine instructeur*, of the sanitary condition of the horses of the regiment, and the state of the infirmary. Should the squadrons be moved, such report will pass through the *chef-d'escadrons* of the week.

Veterinary surgeons will make, direct to the commandants of their respective corps, either verbally or in writing, any observation they may deem for the good of the service with which they are charged.\*

*Visit of Health.*

*Art. 13.* The visit of health is made every Saturday, and more frequently should the sanitary condition of the horses call for it.

When the regiment is distributed, the visit of the head quarters is made by the veterinary surgeon, and that of the out-quarters by his assistant, who is to make his report to the veterinary surgeon; who, in his return, will report to the *chef d'escadrons* of the week, along with the result of his own visit.

*Destruction of Horses.*

*Art. 14.* Whenever the veterinary surgeon thinks that a horse ought to be destroyed, he will report the circumstance to the *capitaine instructeur*, who will submit the same to the colonel, by whom orders will be given. Should the destruction be called for on account of disease, the colonel will make a report to the General of the Brigade, with the view of obtaining his authority. In all cases, the colonel will prevent the assistant (*sous-intendant*) from making a report of the loss.

*Duty at the Infirmary.*

*Art. 15.* The quarter-masters, corporals, and troops, doing duty at the infirmary, are there under the orders of the veterinary surgeon.

*Casting of Horses.*

*Art. 16.* The veterinary surgeon will give his opinion on all proposals for casting horses made by the commanding officers of squadrons.

\* This part of the order is since rescinded.



*Feeding on Green Forage.*

*Art. 17.* Every year, at the season green meat is to be obtained, after a special inspection of all the horses of the regiment, made in the presence of the captains commanding, the veterinary surgeon will point out, by report, such horses as he considers such regimen is proper for.

*Reception of Remounts.*

*Art. 18.* The veterinary surgeon will assist in the reception of remount horses for the regiment, under the superintendence of the serjeant-major (*instructeur-en-chef*.) He will certify the age and description, and will class them in accordance with their state of health, and the care they require. Afterwards he will brand them with the mark of the regiment on the left thigh, and mark them with the registered No. of the regiment upon the upper and external part of the near fore foot.

*Superintendence of the Forge.*

*Art. 19.* Veterinary surgeons will exercise an unremitting superintendence of the forge, of which they have the direction, under the *Capitaine Instructeur*.

They will vouch for the aptitude of the smiths; will require them to be provided with such utensils as Government do not furnish the forge with; see that they have a sufficiency of nails and shoes made for the requirements of the service; and will watch over the quality of the shoes and nails.

*Practice of Shoeing.*

*Art. 20.* One of the veterinary surgeons will give to the farriers and farriers' men (*élèves maréchaux*) a theoretic work on farriery; besides which he will give them instructions on such parts of the ordinary practice of veterinary medicine, as will fit them for assistants in the experimental infirmaries and on march.

*Monthly Report.*

*Art. 21.* In dépôt, or when the regiment is all together, the veterinary surgeon will give in to the commanding officer, at the end of every month, through the *Capitaine Instructeur*, a report: 1st, on the sanitary state of the horses, and the condition of the infirmary; 2dly, on the quality of the forage and the substitutions deemed requisite; 3dly, on the hygienic measures appearing to him useful to suggest for

the purpose of conserving the health of the horses ; 4thly, on the conduct and duty of the farriers. Should the squadrons be moved about, such reports will come through the *chef d'escadrons* of the week.

### *Visits to the Forage Barns.*

*Art. 22.* The veterinary surgeon will accompany the superior officer and the military *sous intendant* in their monthly visits to the forage barns, that he may give his opinion on the provender furnished for the troops. His opinion is placed on the register of the forage barn, and becomes included in the *résumé* of the superior officer. He likewise will give his opinion on the forage in course of distribution, whenever it may be asked of him by the major or any other superior officer delegated to that duty by the colonel.

### *Medicines.*

*Art. 23.* Simple and officinal medicines' requisite for sick horses are furnished, as much as possible, by the military *pharmaciens*. These medicines, classed and labelled and put in appropriate vessels, are under the conservation of the veterinary surgeons kept in a convenient place for this purpose in every cavalry quarter.

### *Keeping of Registers.*

*Art. 24.* The veterinary surgeon will keep, under the surveillance of the major, three registers:—the first, divided into three columns, serves to show the day of admission of horses into the infirmary and that of their discharge, their number, the squadron to which they belong, their size, age, origin, where they came from, (*provenance*,) the nature of the disease, the operations practised, the treatment employed ; —the second register will serve to keep an account of unsound horses, to note down any changes that may take place in them in relation to their strength, energy, diseases they may have undergone, and lastly, their aptitude for service ; —the third serving to keep an account of the medicines, utensils, and instruments received ; in a word, of everything that may be required for the service of the infirmary and pharmacy.

*Measures to be taken at the moment of a march of the Regiment ;  
place in battle of Veterinary Surgeons.*

*Art. 25.* When a regiment receives an order to march, the veterinary surgeon will specify in his daily report, some days

before the march, such horses as, on account of sickness, ought to remain in garrison, and those which, on account of their age, or of their condition, ought to travel by short journeys, the same as the horses of remount march.

Should the regiment march in two or more columns, the veterinary surgeon will march with the one which contains the *état-major*.

The assistant veterinary surgeon will march with the sick and lame, and young horses.

*Art. 26.* Every day, at the hour appointed by the commandant of the squadron, horses having wounds or sickness will be brought in front of the police station by their men, under the superintendence of the quarter-master of the week of each squadron, who will make known to the Captain whatever the veterinarian prescribes.

The master-saddler will also attend at these dressings, in order that he may see what repairs the saddles may require which have occasioned sore backs.

*Art. 27.* The veterinary surgeon will point out to the captains commandant, such horses whose kit or saddle had better be deposited on the baggage, as well as such as ought to march with the led horses, and those who are unable to follow the regiment.

Should the veterinary surgeon discover any horses afflicted or suspected with contagious disease, he will immediately inform the commandant of it, in order that such horses may be separated during the march: the magistrates issuing the billets for quarters are also to be informed of their maladies, and to be requested for isolated abodes for them, while the troopers having charge of them are also to be separately lodged. Such horses will be left for subsistence to the first body of cavalry who happens to be marching by the same route.

*Art. 28.* Veterinary surgeons are to station themselves, in their order of seniority, on the left of the medical officers.

### *Punishments.*

*Art. 29.* The principal veterinary surgeon cannot be punished but by a superior officer.

In the case of a principal veterinary surgeon being attached to an establishment, where there is a detachment of the regiment, commanded by an officer of inferior rank to that of *chef d'escadrons*, punishment cannot be inflicted but by superior military authority, under whose orders is placed such establishment or detachment, and by the demand made for it by the commanding officer.

*Art. 30.* Veterinary surgeons of the 1st and 2d classes cannot be punished but by their superior officers.

Neither can assistant veterinarians unless by superior officers and captains.

Other officers can only receive punishment when under commanding officers of regiments.

*Act. 31.* Veterinary surgeons are subordinate one to another, in the order of their rank. Each one can be punished by his superior.

*Art. 32.* The punishments veterinary surgeons are amenable to, are as follow :

I. Simple arrest. II. Reprimand from the Colonel. III. Severe arrest. IV. Prison.

The veterinary surgeon brings, on the part of the *capitaine instructeur*, punishment on all the non-commissioned officers of the regiment or establishment, should he neglect the general duties of the infirmary. In every case where a trooper, brigadier, or non-commissioned officer, has to be complained of, such complaint will be preferred to the adjutant-major of the week, or the captain commanding, who will pronounce punishment, should it be called for.

#### *Honours and Precedences.*

*Art. 33.*—Principal veterinary surgeons, and those of the 1st and 2d classes, will receive the salute of carrying arms from the sentinels. All veterinary surgeons receive salutes from non-commissioned officers, brigadiers, and troopers.

Principal veterinary surgeons receive funeral honours from a detachment of men ; other veterinarians from half a detachment ; and assistants have a quarter of one. Veterinary surgeons take rank in receptions and public ceremonies after the medical officers. They join with the officers in making the Sunday visit to the commandant of the establishment, or of the regiment to which they belong. They are admitted to visits of the regiment made to persons who are entitled to them, according to the regulations regarding honours and precedences.

The reception of veterinary surgeons is established alone according to regulated order.

#### *Table, Term of Absence, Marriages.*

*Art. 34.*—Veterinary surgeons of all ranks live at the table of lieutenants and sub-lieutenants.

They are subjected, for leave of absence, permissions, &c., to the same restrictions as medical officers.



They are not to marry until they have obtained permission so to do, in writing, from the Secretary-at-War, nor without conforming to the regulations prescribed in the circular of the 17th of December, 1843.

*Art. 35.* All regulations contrary to the present ones are and remain abrogated.

The Secretary-at-War,  
(Signed) A. DE SAINT-ARNAUD.

PARIS; 12th June, 1853.

(*Recueil de Méd. Vét. de Juin, 1852.*)

## ANALYSES OF THE BLOOD OF A HORSE IN WHOM THE PNEUMO-GASTRICS HAD BEEN DIVIDED.

By M. E. CLEMENT, *Chef-de-Service of Chemistry at Alfort.*

EXPERIMENTS and analyses made with a view of throwing light upon the double function of respiration and nutrition, led M. Clement to the following conclusions:—

1. That, in the act of normal respiration, the blood is combusted in the formation of water and fibrine at the cost of the albumen; which, consequently, diminishes in quantity in the arterial blood, while an increase at the same time takes place in the proportions of the two former ingredients.

2. That in the case of an act of respiration so imperfect as that which ensues on the section of the pneumo-gastric nerves, combustion becomes extinguished in the lung, and the blood no longer undergoes any other than a mechanical influence on the part of the air.

3. That, during this inertia of the pulmonary organ, albumen no longer attracting the oxygen of the air, there is no more water or fibrine produced.

4. That, as a consequence of this defective combustion, the lung no longer performs the functions of exhalatory apparatus, the water being lost in the mass of blood, while the albumen becomes sensibly augmented.

5. That, while the fibrine diminishes after the section of pneumo-gastrics, the vital or assimilative force is still active in the organism notwithstanding the progressive loss of vitality in the lung.

6. That, on the contrary, when it augments, it becomes the source of the life of the organism in general, and of the lung in particular, and these are exhausted together.

*Relative to the Colouration of the Venous Blood.*

1. It is black in the case in which the fibrine diminishes, because the tissues are still able to absorb the oxygen which the globules have acquired in their passage through the lungs.

2. It is arterial red when the fibrine augments, because, then, the organic tissues, dead or dying, are no longer able to absorb oxygen as before.

(*Recueil de Méd. Vét. de Juillet*, 1852.)

# RESEARCHES ON THE ALTERATIONS WHICH PAIN, LONG TIME ENDURED, MAY OCCASION IN THE COMPOSITION OF THE BLOOD, INTENDED TO SERVE IN AID OF EXPLAINING RESPIRATION AND NUTRITION.

By M. CLEMENT, *Chef-de-Service of Chemistry at Alfort.*

WITHOUT entering on any of the large details, or the direct conclusions deducible from the preceding reflections, as well as from the inspection of the Tables accompanying them, it appears that, during violent pain—

1st. The water and colouring matter of the blood augment, or seem to augment, in quantity.

2dly. The albumen and fibrine diminish.

3dly. That, while the fibrine and albumen, in unison, are diminishing 7-1000ths on an average on the one part, the colouring matters of the blood are increasing about 7-1000ths on the other side.

4thly. That these facts, studied in relation to the influence of pain on the organism, show that severe pain, by the sure excitation of the organic functions it produces, must be expected to speedily and deeply wear the economy, so that this last, in order to sustain itself, has need to react strongly on the elements of the blood.

5thly. That the blood in this case loses part of its fibrine and part of its albumen, without losing any of its globules.

6thly. That in relation to the study of nutrition and respiration, it would seem to result from these facts, and especially when we come to compare the chemical composition of the blood with that of the soft tissues, in particular the muscles; *a*, the fibrine is to serve exclusively for nutrition; *b*, and that albumen which would appear to escape

this physiological act is destined for the purpose of respiration and to produce fibrine.

7thly. That this supposition seems explicable on the double fact:—*a*, that the albumen which exists in great quantities in the blood, is, on the contrary, but little abundant in the muscles and other tissues; *b*, that the fibrine, which predominates in the muscles, for example, figures in a very small proportion in the composition of the blood.

8thly. That, according to the same supposition, the albumen of the blood will be in part free, in part combined; and that the portion in combination would be with the fibrine in order to hold it in solution, and thus favour its circulation through the vessels, and in its ultimate analysis, its assimilation.

9thly. That in every respiration, a part only of the albumen is combusted and converted into fibrine.

10thly. That this dissolution of fibrine becomes necessary in order to oppose the coagulation of a principle whose disposition is to become solid, and as we all know, very firmly so.

11thly. That, moreover, this coagulation is hindered by the interposition, suspension in the blood, and motion of the coloured corpuscles.

12thly. That the use of these (corpuscles) is to divide the albumen and fibrine, to oppose the coagulation of the latter, and moreover, to imbibe the oxygen of the air which is going to occasion a fresh combustion in the woof of the living tissues, and so favour the normal accomplishment of the function of assimilation and nutrition.—*Extrait du Compte-Rendu de la Seance du mois de juillet, 1852.*

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#### NOTICE.

The prize of 10,000 francs, which was to be awarded to him who should discover the best preservative or curative measures, found to be effectual and practically applicable against the affection called EPIZOOTIC PLEURO-PNEUMONIA IN CATTLE, and which was to have closed on March 31, 1852, has been prorogued by the Minister of the Interior, &c. to March 31, 1853.

## Home Department.

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### REPORT ON INOCULATION FOR PLEURO-PNEUMONIA IN CATTLE.

BY PROFESSOR SIMONDS OF THE ROYAL VETERINARY COLLEGE.

*(From the Journal of the Royal Agricultural Society.)*

[This Report applies only to the Continental proceedings, and forms, consequently, but the *First Part* of a General Report now in course of preparation.]

IN presenting a report on the subject of the prevention of pleuro-pneumonia by inoculation, it may be observed that there are few things, connected with the diseases of domesticated animals, which have of late years more painfully interested the agriculturist, than the existence of this malady among cattle. The affection has spread far and wide in this country, and destroyed great numbers of our cattle, under circumstances of the most opposite description, in consequence of its possessing all the characters that belong to an epizootic disease: thus not only the hopes of the farmer have been blighted, but in many instances his ruin has been nearly effected. As we know but little of the causes which have produced its repeated outbreak in certain localities, as well as its continued existence in others, so we are equally ignorant of those which led to its first introduction into this kingdom. Unlike many similar disorders, it cannot be traced to the direct importation of animals in whose system the disease was incubated, but, like cholera and other epidemics, it seems to have visited our shores, through, as has been supposed, a peculiar contaminated state of the atmosphere.

Perhaps the only point which has been clearly established with reference to its appearance here, is its prior existence in Germany and other parts of the Continent; where for some years it had proved very destructive, and where it still remains unabated in severity. Various as have been the attempts at prevention as well as cure, all at times have proved alike ineffective, and it may truly be said that none of these means have stood the test of extended experience. Under these circumstances it was to be expected that the Royal Agricultural Society would endeavour, by every means at its disposal, to throw some light both upon the nature of the malady and the laws which governed its spread, and likewise upon the causes which, although secondary in their operation, were supposed to exert an important influence on animals in favouring the attack. This it has done by the awarding of prizes of great pecuniary value for the best essays



on the subject ; by the publication of papers in the pages of its Journal ; and by the delivery of lectures before its members at their annual meetings. Great benefit no doubt has accrued from these several means, but still the pest remains among us, and at times seems uncontrolled in its virulence. The last supposed beneficial method of combating the disease which has engaged the attention of the Council is that of inoculation, a prophylactic to which their attention was originally directed by the Continental publications. It was not, however, deemed advisable at once to take any steps upon these reports, except to request the Professors of the Veterinary College to watch the progress and results of the system, and to give them their opinion of its value.

In June last a letter was received by the Council from His Royal Highness Prince Albert, enclosing a communication which had been forwarded to him on the subject. From this communication, as well as from repeated notices in the Belgian papers particularly, and the statements of different members of the Society, it appeared that a safe, ready, and effective preventive was found in inoculation. Under these circumstances the Council lost no time in adopting means for a perfect investigation of the subject ; and at their meeting in July I was directed to take such further steps as might appear best calculated to effect the purpose. Acting on these instructions, and with the concurrence of the Chairman of the Veterinary Committee, I was led to visit Belgium, the plan having had its origin there. At the Veterinary School of Brussels I found eight cows under experiment, they having been inoculated *fifteen* days prior to my visit with some serous fluid taken from *the lung of an animal which had died of pleuro-pneumonia*. The operation, which had been performed by Dr. Willems, of Hasselt, was undertaken by direction of the Government, who had sent the animals to the School that the effects of the inoculation might be daily watched by the Professors. The punctures made in their tails (the usual place of inoculation) presented a very healthy condition, and it was evident that a few more days would suffice to complete the healing process. The animals were feeding well ; and, with one exception, a cow having a sloughing ulcer of about three inches diameter on the ischium, they appeared to be in health. This ulcer was described to be an effect of the inoculation in the tail, the system of the animal being thereby impregnated with morbid matter, and which in numerous instances, I may here remark, produces far more serious results than were observed in this particular case. The animals, when reported to be in a fit state, were to be sent to

various parts of the country, and mingled with others labouring under the disease in its different stages. From Brussels I proceeded to Hasselt, and had an interview with Dr. Willems, by whom I was politely received, and who, during the whole of my stay in Belgium, showed the greatest readiness to assist me in the investigation. The town, which is the capital of the province of Limbourg, is situated on the confines of the great marshy district of Holland. The land around it is remarkably flat, and on one side only is under the plough, being on the other divided by ditches into meadow and pasture grounds. During the last sixteen years it is said never to have been free from pleuro-pneumonia, and in this time hundreds of animals have died within it. It is a place full of distilleries, and contains from 1400 to 1500 cattle in the summer, and upwards of 2000 in the winter; the animals are fed on the refuse grains, &c., and, when fat, sent to the markets. From the situation, want of drainage, and accumulation of the filth of the town itself, added to the system of feeding the cattle, the kinds of food, neglect of ventilation of the sheds and removal of the dung, &c., Hasselt may be considered as the very centre and focus of a disease like pleuro-pneumonia. The cattle also of the farmers in the neighbourhood are, in general, very poor and badly provided for, and the sheds they inhabit dirty in the extreme:—thus secondary causes, as predisponents to the disease, are in full operation, both within and without the town. The malady is believed to have had its origin from some peculiar contamination of the atmosphere, and to have extended from Germany to Holland and Belgium in 1828. Its introduction, however, into Hasselt, in 1836, is ascribed by Dr. Willems to some diseased animals purchased by a cattle-dealer in Flanders, and which a few days subsequently came into the possession of his father and also of M. Platel, distillers in the town. The common people have been taught to regard the visitation as a judgment of St. Brigita, the patron saint of the cow, according to the Romish Church. The image of this saint adorns one of the churches in Hasselt, and is bedecked with numerous votive offerings of wax and tallow models of strange-looking cows.

These circumstances and opinions prove that the occurrence of pleuro-pneumonia is as little understood in Belgium as in this or any other country. The father of Dr. Willems, generally, keeps in his sheds about 80 cows and oxen in the summer, and from 100 to 120 during the winter, feeding upon the grains, &c., obtained from the distillery. The animals, as they become fat, are disposed of, and their places

quickly filled up by new purchases. The stock, therefore, is very often changed, and since 1836 he estimates his losses at fully 10 per cent. in each year. The losses of other persons have been quite equal to this on the average, while in numerous cases they have been considerably more. It appears that about two years since (December 1850), Dr. Willems, having failed to arrest the disease in his father's herd by either hygienic or medical treatment, had recourse to inoculation, as an experiment upon one or two animals; but it was not until the following February that he adopted it to any extent. Between this date and the commencement of 1852 he inoculated 108 animals belonging to his father, not one of which, it is said, contracted pleuro-pneumonia, although all were exposed to its contagion. Fifty other animals, also the property of M. Willems sen., were left *uninoculated* during the same time, and of these, 17 took the disease, and were destroyed. These facts, with some others bearing on the same point, were embodied in a memoir, and presented to the Minister of the Interior by Dr. Willems in March last, and within a few weeks, from the publicity given to the subject, inoculation became pretty general in many parts of Belgium.

Up to the period of my visit *twelve hundred* animals had been inoculated in Hasselt, with but *ten* deaths; and I was informed that the disease was nearly exterminated for want of subjects to attack, immunity being given by the operation. This number gives but a faint idea of the extent of the practice, as more animals are daily being inoculated in different parts of the kingdom; and Dr. De Saive, I learn, has operated upon no less than 1500 in the provinces of Rhenish Prussia. It seems that, upon publicity being given to the subject, Dr. De Saive wrote to the Governments of France, Holland, and Prussia, offering to inoculate the cattle of these several countries upon some *improved* plan, of which he claimed to be the inventor. Not succeeding immediately in his object, he made arrangements with the local authorities in the different provinces of Rhenish Prussia to carry out the operation. The practice, however, was attended with such ill success, so many animals losing their tails from ulceration and mortification, and others being destroyed by constitutional irritation, that the Government, hearing of these disasters, ordered the inoculations to be forthwith discontinued. No doubt very many of these untoward results were caused by the scrous exudations selected for the inoculations being of bad quality, and likewise by the manner the operation was performed. It remains, however, to be proved that, even with the greatest care, the casualties may not be so numerous as to offer a



serious drawback to the adoption of inoculation, if it should hereafter be satisfactorily shown to be a preventive of pleuropneumonia.

Deputations have been sent by France and Holland, and also by the Belgian Government to Hasselt, to inquire into the value of the practice, but up to the time of my visit Prussia had not taken this step, nor had Dr. Willems been requested to undertake any inoculations in that country. This delay may possibly have arisen from the ill consequences of Dr. De Saive's operations producing a want of confidence on the part of the Government of Prussia. From a letter which I have recently received from Dr. Willems, it appears that experiments are being carried out both in France and Holland at their respective veterinary schools, and also that Prussia is about to follow the example of these countries.

The Government of Belgium is taking the liveliest interest in the matter, and has instituted a series of valuable experiments, so that ere long it will be satisfactorily proved whether inoculation is or is not "a certain and safe preventive" of the disease. It is a fact long since established in medicine that many contagious diseases can be readily communicated from animal to animal by inoculation, thereby giving immunity from an attack of the "natural" disease. The "inoculated" disease also, as a rule, proves of a less dangerous character than the natural, but it is especially to be remembered that *in their nature both are essentially the same*. The advocates, however, of the inoculation of cattle, build the success and value of their practice on the very opposite basis, because they say in no case *is disease of the lungs* caused by the introduction of the morbid matter into the system. Were disease of the lungs to follow, it would be at once fatal to the practice, because its effects being made manifest within these organs could not be controlled, and would assuredly lead on to death. The local disease caused by the inoculation, we are told, is of the same nature as that of the lungs of affected cattle; but it is said always to remain *localized*, because *artificially introduced* into the organism. About two per cent. of the inoculated animals die, while a far greater proportion suffer from ulcerative and gangrenous inflammation of their tails, notwithstanding which the lungs, *the locale of the natural disease*, we are assured, never suffer. If experience proves this to be true, it must be regarded as a new fact in medicine.

We believe each virus, no matter how introduced, naturally or artificially, into the system, to have its own especial seat in the organism. Thus the virus of glanders produces glanders, and the same may be said of farcy, small-pox, cow-



pox, rabies, and many others, all of which produce their like, and are figured forth in some especial organ of the body.

The inoculations of pleuro-pneumonia are made then, as we have seen, in the belief that this disease is highly contagious, and spreads itself from that cause, as well as the other special causes of an epizootic; and that the operation engenders a peculiar state of the system, which, without imparting the disease *itself* to the animal, gives immunity *against all the causes* which produce it. With regard to attempts being made to control epizootic diseases of various kinds, I may here remark that Dr. Layard, a celebrated physician, wrote an essay in 1757, strongly recommending the inoculation of cattle to prevent their falling a sacrifice to a destructive malady which at that time prevailed in this country. It does not, however, appear that beyond a few experiments the practice was adopted, although these inoculated animals were said to have been placed amidst the infection without sustaining injury.

I have before alluded to the interest shown by the Belgian Government in this matter, and I have now to observe that in the early part of this year two *diseased* cows were sent by order of the Minister of the Interior to Hasselt, to be placed with *six* inoculated animals, the property of M. Willems, sen. Eight days afterwards these two cows died, but the six inoculated animals had remained well down to the time of my visit. *Two* other cows were inoculated, and subsequently sent to the farm of M. De Moulin, near Hasselt, and placed with *thirteen* of his cows then ill. These two animals continued unaffected, while, of the thirteen, nine died, and four were restored by medical treatment. I went over to this farm and saw the cows belonging to the Government, and I ascertained that M. De Moulin had *seventeen* cows originally, *four* of which, although not then inoculated, *escaped the malady*. It is true, these four animals were subsequently inoculated, and when I was there no disease had existed for three weeks; but still their escape, at the time the thirteen cows were ill, militates against inoculation being the sole protection of the Government cows. On inspecting the cattle of the different distillers, I found several who had objected to have the operation performed, and *their animals had during the summer been as free from disease as the others*.

All parties agree that they have most disease in the winter, when the town is fullest of cattle, and when the secondary causes I have named are in active and vigorous operation. It is also admitted that in some summers since 1836, they have had as little disease as during the past. Similar things have occurred in the experience of most persons, and are not without

their value in an investigation of this description. It would appear that the malady was likely this year also to increase towards the autumn, as three or four cases occurred just as I was about to leave Hasselt; and it is therefore probable that inoculation may have a severe test even in that place. These cases happened to *non*-inoculated animals, and in sheds where some had been inoculated. Thus M. Vanstraelen keeps twenty-four, of which eight only were inoculated; a *non*-inoculated cow was taken ill on September 2d, and died on the 10th, being allowed to remain with all the others three or four days before removal. M. Rosseau keeps twenty-seven, and has not had any inoculated, notwithstanding which his cattle were exempt from the disease for *seven months*, and up to the last week in August, when one was taken ill and sold; another was attacked within a few days, and was evidently fast sinking when I saw her. These animals also had free communication with the others. Such instances as these are sufficient to establish the points just referred to; and it becomes therefore unnecessary to multiply cases of the same description.

The statements given by different persons are very contradictory, as will appear from the sequel of this report. Even on the subject of protection by inoculation Dr. Willems does not allow a *single failure*, while others assert that several such instances have occurred. With regard to the local indications of a successful inoculation, although I witnessed many operations performed by Dr. Willems, and inspected the parts at different intervals afterwards, I saw none which, to me, were satisfactory. Unhealthy inflammation, ulceration, sloughing, and gangrene, were far too frequently the results of the operation. The punctures are made very deep, with a double-edged scalpel, which is thrust through the skin, and moved from side to side to allow the two or three drops of fluid used for the inoculation to penetrate to the bottom of the wound. Surgical and scientific principles certainly did not rule in these operations. What the effects may be of a different mode of procedure I am unable at present to say, but to establish the value of inoculation further experiments should be adopted. Another point of the first consequence is susceptibility to a *re*-inoculation. It is said by the advocates of the system, that such susceptibility is entirely destroyed by the first inoculation. Among other animals which I was shown by Dr. Willems were two cows belonging to his father that had been operated upon fifteen months, and which, he assured me, he had *re*-inoculated three or four times, and in each instance without success. Capability of transmitting "the virus" from animal to animal, by what is technically called

“removes” from the original source of the inoculating material, is also another very important question. The lymph of the vaccine disease, small-pox, &c., is made milder and safer for use by these removes; and supposing the truth of the system of inoculating cattle, as a preventive of pleuro-pneumonia, to be established, it is of the first importance that a *safe* as well as an *efficacious* material should be employed. These points will undoubtedly receive elucidation by the experiments now being adopted at the several Continental schools of veterinary medicine. It is a question, however, well worthy the attention of the Council of this Society, as to whether any efforts should be made here towards an obtainment of information on such important subjects. We are told that these problems are solved, and that experience has confirmed the truth of the conclusions; but, at the least, I can affirm from my own observations that the practice of the inoculators does not bear out their assertions, nor is it conducted as though these things were known.

Dr. Willems says he has carried “the virus” through five removes, and that *no* deaths and *fewer* casualties arise from the operations made with the product of such inoculations, and yet, strange as it may appear, he unhesitatingly asserts that he prefers the original exudations from the diseased lungs. Nay, of this I had plenty of proof, as upwards of thirty newly-purchased animals were allowed to remain *un*-inoculated for upwards of a week, until he could obtain some fluid directly from the affected lungs of an animal destroyed by the malady. Another instance of the same kind was afforded me two days before leaving Belgium, when I accompanied M. Willems from Hasselt to the Veterinary School of Brussels, where eight cows sent by the Government, in addition to those before mentioned, were waiting his operations. On the morning of our arrival a cow had died of pleuro-pneumonia, from which he inoculated these animals; and *re*-inoculated two of those I had seen at my first visit. M. Willems promised to send me the result of these experiments, and has done so in as far as the eight cows are concerned, but has omitted to say one word about the *reinoculated* animals.

With reference to the period of incubation of “the virus,” it is said to vary from ten days to a month, but I am of opinion that no correct data can be obtained on such a subject from the rough and unscientific operations I witnessed. It is, perhaps, right I should here state that the Professors of the Brussels School are only the observers of the practice, the Minister wishing M. Willems to act independently, and to report when the animals are in a condition to be subjected to counter-proofs, such as cohabitation with



diseased animals, *re-inoculation*, &c. &c., by the Professors. I have spoken of the tail as the part selected for the introduction of the virus; it is necessary to add that the extremity of the organ is chosen, so that amputation may be resorted to in those cases where mortification supervenes upon the inoculation—thus affording the animal a chance of recovery at the expense of this member of its body. It is, however, by no means unfrequent that amputation fails to arrest the progress of mortification, of which one notable exception was seen by me among the animals belonging to M. Willems' father.

The quantity of serous exudation employed never exceeds two or three drops, and it certainly is not a little remarkable that such serious consequences should so often follow its introduction into the system. The material is evidently morbid in the extreme, and probably is either dead, or possesses so small an amount of vitality when used that it soon dies, and as such gives rise to chemical action, ending in the speedy destruction of the tissues, more particularly in so lowly an organised part as the tail. In very many cases, even when ulceration or mortification does not occur, the inflammatory action runs so high and the tail enlarges so much, that deep incisions, some three or four inches long, have to be made to give relief to the engorged tissues. These untoward results do not probably occur in more than twelve or fifteen cases in every hundred, but they show how important it is to adopt means to procure a milder and safer material for inoculation than that obtained directly from the lungs. Cases of this kind invariably produce great constitutional disturbance and consequent emaciation, and call for long-continued medical treatment. At the commencement of these experiments some persons inoculated in the dewlap, and the effects were far more destructive than those I have described. In one instance in particular, *the exudations of a gangrenous lung being employed on eighteen animals, twelve out of the number died.*

Much stress has been laid on the microscopic appearances of the exudations obtained from the inoculated parts, in order to show that peculiar corpuscles possessing a tremulous motion are therein developed, and that these, most probably, are the true agents of the communication of the special disease. The instrument used at Hasselt by Dr. Willems and myself was very inferior, and no dependence could be placed in its defining powers; and from what I have since observed, I believe that none but ordinary inflammatory products exist, and consequently that no special corpuscles will be met with in these exudations.



In bringing this Report to a conclusion, I am desirous of adding the statements of two or three persons with whom I had interviews, in order to prove how much has yet to be learned respecting the value of inoculation, and the necessity also which exists for the adoption of independent experiments. M. Maris, veterinary surgeon of Hasselt, and one of the Commission appointed by the Government, says "that he wants more experience in the operation, as he is not satisfied with his own or Dr. Willems' inoculations. He has operated on upwards of a thousand animals since the 15th of April, with seventeen deaths; and has furnished the Government with the full details of these cases. Since April he has attended about fifteen or sixteen animals affected with pleuro-pneumonia in the town. Hasselt, during the summer, is in general pretty free from the disease, and fresh cattle entering it at this period of the year are not so susceptible of the malady as those located there. In November the disease usually begins, and becomes more rife through the winter. Some of the distillers have not inoculated, nor have they had the disease: others commenced the plan, but discontinued it from the casualties attending the process. A great many animals have lost their tails. He frequently inoculates in the dewlap, but is most careful in selecting the "virus." Of *fifty* animals successfully inoculated at first, *twenty-five* took by a *re-inoculation*. A cow, successfully *re-inoculated* at St. Trond, had the *natural disease* ten days afterwards, but recovered, from the treatment had recourse to. At St. Trond, also, three cows died from pleuro-pneumonia, which had been satisfactorily inoculated; the first was attacked twenty days afterwards, the second two months, and the third three months and a half. These animals were under the care of M. Wainots, veterinary surgeon of that place."

Another veterinary surgeon of Hasselt, M. Vaes, says "that since April he has inoculated four hundred animals with complete success—that all have been exposed to the contagion with impunity. Has tried *re-inoculation* on twenty, and only one was affected a second time. The *re-inoculation* was done four months after the first. About 2 per cent. die from the inoculation. Of one hundred and thirty beasts ten only lost their tails. Believes fully in the advantages of inoculation, and that no other preventive but this is of any use."

M. Douterluigne, veterinary surgeon of Brussels, also a member of the Government commission, says "that his own inoculations too often prove destructive of the organism of the tail, which inflames and passes on to a gangrenous condition. That he is perfectly satisfied that very many animals will take by a *second* after a *first successful* inoculation.

Has seen many deaths from pleuro-pneumonia subsequent to inoculation. Considers M. Willems far too confident in the value of the operation; and adds that when these successful *re-inoculations* and occurrences of the disease after inoculation have been named to him, he has always answered, "All such results depend entirely on improper original inoculations, for when these are properly done, the operation is a perfect and complete prophylactic." M. Douterluigne also informed me that he had frequently visited Hasselt, and made inquiries independent of Dr. Willems, and found there were many objectors to the practice, and also doubters of its efficacy. I learned also from him that in the neighbourhood of Brussels very few cattle had been inoculated, and that several veterinary surgeons in different parts of the country, from observing the ill effects, had declined to go on with the practice.

[This report is dated September, 1852; and since it was sent in, we learn that the Royal Agricultural Society has been enabled, through the liberality of Mr. Paget of Ruddington, near Nottingham, to place about a hundred animals under Mr. Simonds' charge for inoculation. The results of these experiments will be given in the next number of the Society's Journal.]

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## MAJOR'S BRITISH REMEDY, FOR THE CURE OF SPAVINS, ALL TUMOURS, OSSIFICATIONS, &c., IN THE HORSE.

A cure for Bone Spavins and Ring Bones!—To announce it would surely be one of the most pleasing duties which could fall to the lot of a chronicler of events, marking Veterinary progress—if such a cure existed. We are informed, that Mr. Major, an Englishman by birth, practised as a Veterinary Surgeon in America, and for years turned his attention to the eradication of the bone spavins, ring bones, &c. After some years of study, he discovered his present preparation, which has been used for some time with almost unvaried success in the United States, under the title of "Major's British Remedy." By the advice of his friends, he came to England a few weeks ago, in order to extend the benefits of his discovery to his own countrymen. It is reported, that the most complete success has crowned his efforts; and that, notwithstanding the opposition which he is stated to have encountered, when appealing to the chiefs of the Veterinary College, in order that his discovery might be practically tested, according to its real merits. In fact, it is insinuated that Mr. Major has been made one of the piti-

able family of promulgators of new truths, who, from no better reason than because the masses of men are prejudiced, are made to suffer martyrdom for daring to appear at the bar of public opinion, to advocate the cause of impartial truth. But whatever may have been Mr. Major's lot elsewhere, we promise him fair dealing. We have no notion of making him a Galileo, merely by identifying him with the immortal and tortured philosopher, on the common ground of being sufferers for the truth's sake; we shall at once withdraw him from such company, by protesting that we are the advocates of no party; we want the truth, and whoever are the promulgators, we shall welcome them as the benefactors of their race.

Before entering into details, a few general observations may not be out of place. In 1852, Mr. Major announces to the world that, what men of science of bygone and of the present age have believed to be true is, in his opinion, false. What they have deemed impossible is perfectly within the sphere of his own abilities, and what have been considered matters of extreme difficulty, he knows to be easy beyond conception. Now, though we believe, that none more than ourselves strive to investigate the truth with unprejudiced and unpreoccupied minds, we confess that, when we listen to dogmatic statements of opinion, we are always guarded against the possibility of deception; and when a man treats with an air of indifference, nay, of sarcastic pleasantry, what the wise men of all time have considered matters of deep thought, we feel strongly inclined to doubt the value of his judgment. The tone which we thus censure in general terms is precisely that held by Mr. Major; and therefore it may seem likely that our verdict on his claims will savour of the prejudice which we confess is excited in our minds by the nature of his professions. But our candour must, to some extent at least, be accepted as a measure of our honesty; and it must be borne in mind that our caution in testing the validity of evidence is a guarantee for the soundness of the judgment we may eventually pronounce, rather than a reason for impugning it.

Mr. Major tells us, in his pamphlet, that his *British Remedy*, besides a variety of affections, cures all tumours and ossifications in the horse. In manifest contradiction to the words inscribed on his title-page, is the following statement, which he makes in his fourth page:—"Mr. Major came to England and presented himself and credentials to the Veterinary College of London. Although treated with great politeness, his method of practice was considered not exactly legitimate,



and his cures spoken of as incredulous of belief; but specimens were shown to him in an anchylose state, and he was rather sarcastically asked, if he could cure them? Mr. Major replied that he was not presumptuous enough to think that he could do God's work—make new legs and bring dead horses to life."

To assert in the title-page, that his remedy cures all ossifications, and in his pamphlet (in reply to a question whether or not he could cure an anchylose specimen), that he was not presumptuous enough to think he could re-create, is to contradict himself; for he confesses himself unable to cure at least *that* form of ossification, whereas in the title-page he announces his remedy as capable of curing *All* tumours and ossifications.

In disclaiming the presumption to think he can do God's work by curing anchylosed joints, he is making a confession diametrically opposed to others of his statements; for, when he tells us he can cure all ossifications, he tells us that he can cure all bone spavins, ring bones, &c. In pretending to effect these cures, he is pretending to do the Creator's work; for it is only by re-construction—by re-creation, to speak plainly—of the healthy structures, in the diseases of which we have spoken, that cures can be effected.

A bone spavin is an ossification of the hock-joint. Let us take as an instance, a horse whose gait is impaired by such an ossification, and compare him with a piece of machinery whose work is deranged in consequence of one of the joints being rendered immoveable by the deposition of an indestructible material between its parts. We hold that the proper working of the machinery can only be restored by the restoration of that joint to its pristine state. The cause of the immobility of the joint is an indestructible material, and, therefore there is but one road open—the old joint must be done away with, and a new one put in its place, in order to restore the machinery to its proper working. So with lameness from ossification of the hock-joint. If the movements of the horse be lame in consequence of the deposition of bony matter between the hock bones, and consequent destruction of the joints, the animal can only be made sound by restoring the hock to its pristine state: since the bony deposit in the joints cannot be removed, a new joint is needed. It is not to be had, and therefore the true spavin in fact, and the consequent lameness, to a greater or less extent, must remain: yes, must remain as a matter of physical necessity, incident to the commonest understanding, and defying the *ipse dixit* of Mr. Major, that he can cure all ossifications.



We have proved that Mr. Major has contradicted himself, and consequently we feel justified in requiring unexceptional evidence before we believe his assertions, our only object being to protect those for whom we write from a deception as great and real, as it may seem plausible at first sight to the inexperienced.

Whatever good there may be in Mr. Major's remedy, (and we do not doubt that it has some advantages,) we would not have any one place a blind reliance upon the professions set forth in its favour. The more so that veterinary science has made such a rapid advance of late years, and so many excellent practitioners are to be found in almost every town in England, whose judgment and skill render such desperate expedients as trusting to that impossibility—a universal specific—an act of the grossest folly.—*The Field*, Jan. 15th.

#### MAJOR'S BRITISH REMEDY.

*To the Editor of 'The Field.'*

DEAR SIR,—My attention has been this day called to an article in your last week's paper, in which you notice a pamphlet published for the purpose of explaining my mode of treatment in the cure of ringbones, spavins, &c. With the tenour of your remarks in general I cannot complain of, neither do I wish to impugn their justice; whatever I have stated you have a perfect right to comment upon; and as I know your only aim is to elicit the facts or fallacy of the case, I sincerely thank you when you say "We are the advocates of no party, we want the truth, and whoever are the promulgators, we shall welcome them as the benefactors of their race."

Such then being your principles, and no doubt your motto is "Audi alteram partem," I respectfully ask you for a space in your valuable Journal, to explain what you seem to think inconsistencies in my statement. I do not consider myself, neither do I wish to be considered, a martyr, nor was it my intention to set my opinions against men of science in either by-gone times or the present day. What I wished to make appear was, that I believed I had found out a remedy that was likely to supersede the barbarous and most doubtful practice of "firing," and that I have done so has been fully proved. In

your remarks as to my contradicting what I put forth in the title-page, I humbly think you go too far; and trust it will be considered something in my favour in at once candidly acknowledging what I could not do. What I wished to be understood is, that there are many stages of the disease before a joint becomes ankylosed, and if my treatment had been applied before arriving at the latter stage, it would have been successful; but as I am sure it would have effected a cure in its first stage, and you must admit that all diseases have a first stage, then I respectfully submit that it does apply to all ossification.

With regard to the gentlemen of the veterinary profession, God forbid that I should ever say one word in offence, for no one has a greater regard for their great abilities, judgment, and science. I am in daily communication with veterinary surgeons, in all parts of the United Kingdom, and many are now, not only using the "Remedy" with the greatest success, but are also acting as agents for its sale. I should have been glad, as it was my intention, to have placed it in the hands of the veterinary profession, and for that purpose I went to the College; it was refused, and I had no other resource left than acting as I have done.

Your requiring to have unexceptionable evidence before believing my assertions, is nothing but strict justice, alike creditable to you as the exponent of public opinion, and a man of truth and honour. I therefore offer to you, in the same fair spirit, the unexceptionable evidence you require; and for that purpose, I respectfully invite you, sir, to call and witness for yourself the truth or fallacy of what I assert; an invitation I have always held out to all desirous of visiting my Infirmary, for I court the strictest inquiry and closest investigation.

I am led thus to speak, not so much on my own account, but from a sincere desire to promulgate a blessing, in the curing of the above diseases, without torture to the animal, and that too without reference to the practice and opinions of others. Trusting that you will be pleased to give insertion to this.

I am, yours respectfully,

JOSEPH MAJOR.

INFIRMARY, 28, Shepherd Street, May Fair;  
Jan. 20th, 1853.

*The Field; Saturday, Jan. 22d.*

## CAB FARES.

*To the Editor of the 'Times.'*

Sir,—A “Younger Son” produced yesterday in your columns a statement which he terms the balance sheet of a cab proprietor.

I am a cab proprietor, and do I not wish I could make a “Younger Son” prove his words! Would it not gladden the heart of an “old father!” We know rashness is the concomitant of youth; and it is not without some feeling of admiration for the style in which the lash is applied to a system of overcharge, which is as disgraceful to this metropolis as it is injurious to the cab master, that I claim an old privilege—that of correcting a “Younger Son,” and of contrasting the dreams of youth with the realities of age.

THE SON'S				THE FATHER'S			
Outlay.				Outlay.			
£	s.	d.		£	s.	d.	
Cab . . . . .	30	0	0	Cab . . . . .	35	0	0
Horse . . . . .	20	0	0	Horse . . . . .	20	0	0
Harness . . . . .	5	0	0	Harness . . . . .	5	0	0
Licensing plate . . . . .	0	5	0	License (not 5s.) . . . . .	5	0	0
	55	5	0		65	0	0
Expenses.				Expenses.			
License duty . . . . .	26	0	0	Duty . . . . .	26	0	0
Keep of one horse . . . . .	24	0	0	Keep of “two” horses . . . . .	48	0	0
Stabling, shoeing, insurance, &c. . . . .	22	0	0	Stabling, shoeing, &c. . . . .	44	0	0
	72	0	0	Wear and tear . . . . .	18	0	0
					136	0	0
Earnings.				Earnings.			
Hansom's, in season . . . . .	0	18	0	Hansom's . . . . .	0	16	0
Ditto, out of season . . . . .	0	16	0	Ditto, out of season . . . . .	0	11	0
Four-wheel . . . . .	0	14	6	Four-wheel . . . . .	0	12	0
Ditto, out of season . . . . .	0	12	6	Ditto, out of season . . . . .	0	9	0
Annual receipts of a four-wheel cab . . . . .				Annual receipts of a four-wheel cab, five season months, seven out of season . . . . .			
	219	0	0		164	12	0
Deduct expenses . . . . .	72	0	0	Deduct expenses . . . . .	136	0	0
	£147	0	0	Profit . . . . .	£28	12	0
				Or about 45 per cent.			

You will perceive, Sir, the great mistakes your youthful correspondent has fallen into are that one horse will do the work of two, and that such horse will work through the year without deterioration.

Allow me, as a cab proprietor, to say, that to the justice of many, indeed all, of his remarks in reference to the overcharge, the extortion of cab drivers, I most heartily subscribe.

Sixpence-a mile I have always considered sufficiently remunerative; indeed I think we should be benefited by it, and I have for some time striven to form a company which should lower the fare, and, what is of immense importance, reform the servant, whose hourly practice is to deceive and annoy his customer. Your powerful pen was, some time since, wielded against the iniquity of the present system, and I was in hopes it would have brought about a general alteration. Pray do not let the subject drop. A few "younger sons," with an old head or two upon their shoulders, would in combination cure the evil, and entitle themselves to the lasting gratitude of half the population of this city.

With an apology for the length of this letter, which nothing but the importance of the subject would have induced me to offer,

Believe me, Sir, most respectfully yours,

AN OLD FATHER.

*Jan. 25.*

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#### ON INFLAMMATIONS OF THE SCLEROTICA.

AFTER stating that this affection occurs commonly in the autumnal and winter months, Mr. White Cooper thus describes the symptoms:—

"The tough, fibrous sclerotic has little sensibility in its normal state; but when the vessels composing its areolar tissue swell under inflammation, the membrane yields to the distension slowly, obstinately, and with grievous pain. To a superficial observer, the inflammation appears much less severe than in conjunctivitis; for in place of the bright crimson of the latter, the eye has a generally diffused pink hue, caused by the minute capillaries of the white sclerotic being gorged with red blood. On close inspection, there will be seen a series of straight vessels running from the periphery of the globe towards the cornea, separately at first, but inosculating at acute angles as they approach it; these are manifestly deeper than the more tortuous vessels, which may always be seen coursing over the surface.

"Whenever the sclerotic is inflamed, there is deep-seated pain, of an aching, throbbing character. The globe feels too large for the socket, and is tender to the touch; the pain is not confined to the eye, but extends to the temple, which is bruised and sore; in severe cases the whole side of the head, even to the occiput, together with the brow and cheek, participate in the suffering. This is aggravated at night, and



it is supposed that in true rheumatic cases, the periosteum lining the orbit participates in the inflammation. Be that as it may, the patient is generally awakened about two in the morning by a paroxysm of pain, which gradually increases up to a certain point, and then as gradually subsides; and this is repeated night after night, till the sufferer, though jaded and weary, dreads the approach of bed-time, and the morning finds him tossing, feverish, and unrefreshed.

“When the great vascular communication which extends from tunic to tunic of the eye is considered, we may readily conceive that inflammatory action commencing in the sclerotic is speedily extended to the other membranes. Accordingly, within a few days after the pinkiness of the sclerotic manifests the presence of inflammation, the conjunctiva will redden, and the iris will be slightly changed in colour; for instance, a blue iris will assume a slight greenish tinge without perceptible dulness, and about the same time the patient complains of some mistiness of vision; the pupil too will be rather contracted, and will not act freely. These symptoms indicate that the iris and choroid participate in the morbid action. When the iris becomes involved, the characteristic zone around the cornea becomes strongly marked, being gradually shaded off into the general pink of the sclerotic, above which a pretty close network of inflamed conjunctival vessels can be seen.

“At the first onset of scleratitis, the whole membrane is not suffused at once; a patch, generally near the cornea, first becomes injected, and from this the inflammation, if not checked, rapidly extends. \* \* \* \*

“As a general rule, there can be no doubt that judicious depletion, by cupping or leeching, is beneficial. The vessels are thereby unloaded, and brought into a favorable condition for responding to the action of the medicines; and I may remark, that the mastoid region is preferable to the temple for the abstraction of blood. The bruised and tender feeling of the temple, which is characteristic of scleratitis, renders cupping on that spot a very painful proceeding, and leeches occasionally cause much irritation and erythematous swelling, when applied there; these objections do not apply to the mastoid region, and the relief is equally great when the blood is taken from thence.

“As regards general treatment, much will, of course, depend on the condition in which the patient was found. The bowels should be well cleared in the first instance, but afterwards mere purging does little good. The point to be held in view, should be correction of the secretions, and regulation

of the bowels rather than active purgation : no less important is it to maintain an action of the skin, by doses of Dover's powder or James's powder, where the surface is dry. A valuable medicine, after the tongue has become clean, is bark and soda, five grains of each of which, combined with two of powdered colchicum, or without the colchicum, may be given thrice a day with the happiest effect. The iodide of potassium, too, often exerts great influence over sclerotitis, especially after it has become chronic. From three to five grains thrice a day, in a light bitter infusion, as that of hop, will often remove the lingering inflammation with great rapidity."—*From the 'Association Medical Journal,' Jan. 28.*

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### ZINC OINTMENT.

OUR attention has been directed to the following remarks of Dr. Copland, Part xvi. of his *Dictionary of Practical Medicine*, p. 935, on the subject of zinc ointment:—

"Great care should be taken in this affection, as well as in others for which ointments may be required, that they be recently made. In a case to which I was lately called, the zinc ointment was prescribed after the use of emollient applications, and was found quite rancid and most injurious at *five different Chemists* in the outskirts of the town where it was had; but when this ointment was procured from a respectable chemist in town, it was quite successful."

To guard against a recurrence of this accident, we would suggest that where the demand is small, it would be better not to keep the ointment ready, but to mix it when wanted.—*Pharmaceut. Journal, Jan. 1853.*

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### SENSIBLE HORSES.

LAING, in his *Travels in Norway*, says that the horses in that country have a very sensible way of taking their food. Instead of swilling themselves with a pailful of water at a draught, no doubt from the fear of not getting any again, and then overgorging themselves with dry food for the same reason; they have a bucket of water put down beside their allowance of hay. It is amusing to see with what relish they take a sip of the one and a mouthful of the other alternately, sometimes only moistening their mouths, as a rational being would do while eating a dinner of such dry food. A broken-winded horse is scarcely ever seen in Norway.

\*.\* This is a practice we strongly recommend in our own stables.—*Ed. Vet.*

## THE VETERINARIAN, MARCH 1, 1853.

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Ne quid falsi dicere audeat, ne quid veri non audeat.—CICERO.

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THAT the regulations recently issued by the authorities at the Horse Guards will answer one, and that the principal, end they appear to have in view, viz. the establishment of *uniformity* in a practice in which the different cavalry regiments differ one from another in almost as many respects as there are regiments, we entertain no doubt; but that they will carry this point without forfeiture of something beneficial to the service, or without the introduction of something detrimental to it, seems to us very problematical. The subject of shoeing has ever been an apple of discord among even professional persons themselves; a circumstance that renders it little likely for military persons to hit upon the preferable method, while there is a fearful risk of their introducing something wrong into it. The method they have after due deliberation adopted, is in part commendable and in part objectionable. The allowing of the growth of the hoof in places where by many it used to be pared away, is an improvement; but the shoe they have ordered is the old faulty one which has been in use from time immemorial.

The best horseshoe that can be used is the one which interferes least with the action of the foot, while it affords the animal, as nearly as possible, the same kind of tread the hoof itself gives him. The tread or ground-surface of the foot is not flat, but *concave*; and for this reason a *concave shoe*, to imitate it, is the shoe we have for several years successfully and advantageously made use of. With this shoe the horse grasps or clutches the ground, making good his tread by indentation into that ground, and so has a fast hold on it, without the danger of slipping; which he does not do with the ordinary shoe. The arch of the sole, which supports

the animal's weight, receives itself support from the arch of the shoe, which everywhere lies upon or against it, constituting a very important following-up of nature; and one which is attended with this advantage, that, since there is no, or next to no, interval between the sole and shoe, there is no space for such a force as suction to operate in drawing the shoe off from the foot. Indeed, from the close setting of this shoe to the foot, *five* nails will hold it as fast as six or seven will a shoe of an opposite description; thereby not merely saving nails (which is trifling) but less imprisoning the foot.

The objection urged by many to the concave shoe is, that it is apt to *lame* the horse; and, were it put upon a foot pared out or prepared in the way hoofs in general are for ordinary shoes, there can be no doubt whatever but that lameness would be an occasional consequence; since, such paring or "preparation" as the foot then obtains, renders the sole so tender or sensitive to compression, bruises, &c., that it really cannot bear the contact of the shoe. But, leave the sole *unpared*—remove no horn from it, save what is in the act of *exfoliation*, and would, were it not removed, soon fall away of itself,—and then the concave shoe will be borne with impunity.

The only sole that admits of being taken away by the farrier is *dead horn*, such as nature herself casts off because it has served its purpose; what remains (at least *ought* to remain) is live elastic sole, and by the dead sole upon it is kept elastic to that degree that it answers every purpose of the action of the foot without calling at any time for any necessity for *stopping*: another very important consideration. Thus the old sole (like a leathern sole, and better than it) not only operates as a defence to the part against all noxious substances, such as flint-stones and pieces of glass bottles, &c. but keeps the pores of the horn closed up, and thus preserves the juices, and so the elasticity of the foot.

Another objection urged against the concave shoe is, that it cannot be made by all farriers or shoeing-smiths. But this is a mere *chimera*: it is no reality. Men in the habit of making them will fabricate concave shoes with as much readi-



ness and facility as they would ordinary shoes, *without any tool* or additional utensil whatever. In fact, the concave shoe is very little more than the ordinary shoe—which is now ordered for the cavalry service—*turned upside down*.

We are pleased to find that the paring away of soles, and thereby subjecting the feet to injury, is done away with by the present regulations; and can only further wish that the concave shoe, instead of the one now in ordinary use, had been likewise recommended. We feel quite certain, the service would have been benefited by this latter recommendation, and that then the British cavalry might boast of a system of shoeing which would have been the admiration of all such as have paid the most attention to this much litigated question.

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WE have forborne to take any notice of “Major’s British Remedy” for the cure of spavins and so forth, until evidence of some sort, of a character on which we could rely, had come before us. At the time Mr. Major made known his arrival in this country from America, with the intentions promulgated in his advertisements, we were among the first to seek him, and make propositions to him respecting a fit and proper subject we had at the time for experiment, and which was at first accepted, but subsequently rejected, on the score of there being “no room” for his admission into Mr. Major’s Infirmary, in Shepherd Street. Trial of his remedy on this subject—a 7-year-old horse that had been both blistered and fired for spavin—would have enabled us, of our personal observation, to have spoken, either in praise or dispraise of the “British Remedy.” In the unfortunate absence of a case so likely to turn out desirable for all parties, we refer our readers to the following truthful statement we have received from Mr. Daws:—

That the march of intellect has made rapid strides in the improved education of the veterinary surgeon cannot be de-

nied, notwithstanding quackery and charlatanism have endeavoured to keep pace with, if not to outstrip, some few of the less scientific, and, I may add, ignorant men of the profession, such as have foolishly lent their names to the cravings of an illiterate humbug, for the purpose of puffing his alleged 'never-failing' nostrum for the 'cure of ringbone, spavin, curbs, splints, and all tumours and ossifications in the horse,—viz. 'Major's British Remedy;' and, at the same time, by becoming agents for its sale, have departed from the straightforward path of science, ceased to be *professional* men, and placed themselves on the same level as chemists, stationers, saddlers, &c., they being advertised as expressly "appointed," in *Bell's Life in London*, *Sunday Times*, &c.

If the late respected editor of *Bell's Life*\* had been permitted to remain with us a little longer, he, as a scientific man, would never have suffered the pages of his journal to have been polluted with such improbable and unfounded 'paragraphs' as have occasionally appeared: he always endeavoured to maintain the standing and position in society of the veterinary surgeon. But their appearance is easily accounted for as paid advertisements.

'*Audi alteram partem*' I know to be a favorite motto with you, and therefore I feel certain that you will always speak of a man as you find him. Your journal has ever been conducted on the principles of fair play and independence. I know perfectly well that Mr. Major applied to you to introduce him to the notice of the veterinary profession; but for certain reasons, better known to himself, he declined the honour. Why? Because he knew that notes would be taken and printed in their proper form and shape.

Science advances proportionably to the assistance of the sterling practical suggestions of experience. A client of mine, Mr. Charles Wise, of Eton, had a horse at his hunting stables, belonging to the Rev. C. Johnston, in 1852, who wished him to be healed with the Specific. He came to town, had an interview with Mr. Major, and related his case; was assured the horse could be cured; purchased a bottle of the 'remedy' for 35s., and returned home. Had he consulted me, I should have told him, upon seeing the patient, that *cure* was impossible, for a much less fee. I saw the horse by appointment at Eton, on the 12th of December, on purpose to testify to the effects of the application. It was an aged bay gelding, who had been lame upwards of two years from spavins in both hocks, particularly the near. Mr. Alex.

\* Vincent Dowling, Esq.

Henderson, jun., happened to be present at the time, and will vouch for the correctness of my observations. We saw the *materiel* applied, to the very letter of the printed instructions, to this horse, and likewise to the hock of another—a young one that was lame from the same cause, belonging to Mr. Wise. I watched them closely, every week or so, myself. The instructions, after the application, were fully adhered to : *the inunctions of rum and goose grease. The chamber lie* was not used. No apparent effect had taken place until three weeks or more had elapsed, when depilation of the hair was perceived in both animals, as if an ordinary blister had been applied. I saw both these horses about the end of January, 1853. I found them in the same state as they were on the 12th December, 1852. I enclose you a letter which I have received from Mr. Wise, 12th February, 1853,—who says :

‘In answer to yours, respecting the British Remedy, I beg to say, that my opinion is that it is all Humbug. As far as I have seen it has done no good whatever to my horses.’

Another horse, belonging to Mr. John Renninson, was subjected to its influence for splint and ossific deposit around the coronet; and the results were exactly similar to the foregoing cases.

A client of Mr. R. Cook, V. S. of Erith, was induced to send a cob for treatment, having ossified cartilages, to Mr. Major’s infirmary. I saw him there when I paid a visit to the same: he was lame.

Mr. Cook has furnished the results in a note to me, which I enclose to you for publication.

ERITH; Feb. 15.

DEAR SIR,—I am glad to hear that the Editor of ‘THE VETERINARIAN’ is at last going to give us some remarks on “Major’s Remedy” as I think it time this quackery was exposed. With regard to Mr. Evans’s cob, after six weeks sojourn at Shepherd St., May Fair, he was pronounced fit to depart, and was quietly ridden home, when the groom told me his lameness returned next morning. He was sent a few days after to our forge to have tips on his feet previous to being turned out to grass,—he was then as lame as ever; which did not surprise me, as the “wonderful Specific” was applied to the wrong end of the limb.

Yours faithfully,

ROBERT COOK.

Mr. Major complains in his pamphlet of uncourteous con-

duct towards him by the Professors of the Royal Veterinary College. The powers that be at that highly-respected institution deserve the warmest meed of praise, in my opinion, for refusing to use an empirical remedy. No man in his senses would use another's therapeutic agent unless he were aware of its composition. *The black oil* of the ancients is easily made; and what is the Remedy but a composition of sulphuric acid, rectified spirits of turpentine, and some oil or fatty matter. The acid is the active ingredient, and its effects are either caustic, erodent, or stimulant, in proportion to the strength of its application. I must in candour admit, that Mr. Major acknowledges one thing in his pamphlet, and that is, that the nature of the diseases he professes to practise upon, and the mode of treatment, are taken from the 'Horse,' by our late talented editor, William Youatt: a perusal of which book will furnish the reader with the "specific" which has obtained her Majesty's royal letters patent, and drawn her pictures out of the pockets of many of her liege discontented subjects.

Professor Morton, in his introductory address in 1851 (page 651, vol. xxiv of 'The VETERINARIAN,') says, "The days have passed when the right eyes of hedgehogs fried in oil, and roasted toads, were extolled as specifics," &c. &c. Neither should the knife of the surgeon nor the cautery be withheld when there is necessity for it. The uncertainty of cures gives the hardy and ignorant empiric frequent opportunities of exulting over science. Ignorance is rash and fearless; knowledge cautious and circumspect. The first often boasts a random cure; the other is restrained through fear of doing harm, where there is even a prospect of success. At the same time, by this caution, and a proper view of the bounds of the art, the rational man enjoys much secret satisfaction, and frequently in his turn has ample cause to triumph over suspicion.

H. DAWES.

41, Duke Street, Manchester Square;  
Feb. 20, 1853.

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FARCY IN A COW.

BY W. A. CARTWRIGHT, M.R.C.V.S.

DEAR SIR,—I send you the following rather rare case, and have affixed the title of “Farcy” to it; but whether justly so, I cannot say.

We frequently meet with strings of *chronic* abscesses on cows’ legs, but these appear to me to differ from this case.

I remain, Dear Sir,

Yours most respectfully,

W. A. CARTWRIGHT.

WITCHURCH, SALOP; Feb. 16, 1853.

On Monday, 29th Aug., 1842, I was called in to attend a middle-aged cow belonging to Mrs. Jones, of the White Lion Inn in this town, that had a swelling on the inside and back of the near fore leg, between the knee and elbow. I ordered an aperient and fomentations; but being ill I did not see her again until—

*Sept. 9th.* During this period she had been attended to by a cow leech, who had been rubbing “strong oils” in, pretty freely. She was now reduced in condition, and in much pain, and the off leg was now similarly swelled; and in addition there were unhealthy wounds at the back of each joint, from which, occasionally, she lost a good deal of blood, which would fly out in small streams as far as the udder. I ordered fomentations, and restrained the bleeding with bandages. There were also towards the front part of the near leg two rows of enlarged absorbents.

*11th.* About this time I opened several tumours along the course of the corded absorbents, and gave vent to some unhealthy matters. Others are forming.

*16th.* From last date the swellings of the legs have subsided; and the wounds at the back of the legs have assumed

a more healthy character. More farcy buds have been opened, and the others dressed; the matter is thicker and healthier. The lower farcy buds that had been opened and dressed are getting well; but the upper part of the absorbents, and where two or three buds had been opened, is thickened; many fresh buds are forming, one I opened to-day. I fancy I can feel some enlarged glands about half way up the shoulder, just anterior to the joint; she flinches on pressing the parts. She occasionally horses, and her respiration is full quick; but she has been feeding well to-day, and is looking better upon the whole; and, with the exception of the thickening of the absorbents, is going on well. I now commenced rubbing in some Ung. Hyd. fort. on the near limb.

20<sup>th</sup>. Better. The thickening about the absorbents is subsiding, but the tumour on the shoulder is larger. Ung. Hyd. fort., ʒiij, has been rubbed in.

23<sup>d</sup>. Going on very well. I almost think the "buds" will not separate. The tumour on the shoulder is, I think, less, and the cow is looking better altogether. The ointment produced a large œdematous tumour on the side of the dew-lap, but it is nearly absorbed.

26<sup>th</sup>. She does not look really well, and does not fill herself. Opened one of the buds; that on the shoulder is as large as one's fist. Two others are forming about the point of the shoulder. The absorbent below is larger and harder. Rubbed Ung. Hyd. fort., ʒj, and ordered the following, night and morning: Cupri Sulph., ʒiij; Lyttæ, gr. v; P. Lini, ʒij. There is a sore place under the belly, just about the girthing place, which is swelled a little.

Oct. 15<sup>th</sup>. She is getting thinner, and is hot and feverish. Took about a gallon of blood from her, and discontinued the medicine.

19<sup>th</sup>. She is better. There are a few buds ready for opening, situate just below the bleeding place, at the shoulder. The tumour on the side of the shoulder is again enlarging. There are no buds appearing above the bleeding place.

31<sup>st</sup>. Opened the two buds above the bleeding place, and put in tents of Ung. Hyd. Bichlor., and rubbed in the limb some Ung. Potas. Iodid. Co. on the tumour, and on those forming at the point of the shoulder, which the next day were well blistered by it. There is now a tumour forming on the inside of the knee of the other fore leg.

Nov. 6<sup>th</sup>. Opened the tumour on the off leg, which proved to contain pus more like that in farcy buds in horses than anything else. Tumours on the near shoulder appear a

little less; but the parts are to be fomented, as there is a good deal of scurf on them.

*9th.* Opened the bud on the point of the shoulder, on the near side. The parts below are going on very well, and the thickening is going down very fast.

*13th.* The part on the off knee is nearly healed up, and there is but little thickening there, and no fresh buds are appearing. All parts are going on well; but the tumour on the near side, just within the shoulder, still continues very large, though I think it is not quite so large. Rub on it occasionally a little Ung. Potas. Iodid. Co.

*Dec. 12th.* The thickening about the tumour on the inside of the off knee has gone down, and the wound healed up a good while ago. Since the last week a tumour has formed on the point of the shoulder on the off side; but there has not been any enlarged absorbent from the knee or parts below that I could detect. This day I opened it, and let out half an ounce of very unhealthy pus. I put a tent in it of Ung. Hyd. Bichlor. The tumour on the side of the shoulder, on the near side, continues stationary; but I fancy matter will form in it. She continues to horse now and then, but milks and looks pretty well,—still not as she ought to do.

*20th.* The tumour on the off shoulder has healed up, leaving only a diffused thickening. That on the point of the near shoulder has pus in it, and gets larger.

*26th.* Opened the tumour on the near shoulder, which was the size of an egg. There is also one forming just below the one opened, and there is a very large one deeper seated under these two.

*Jan. 11th, 1843.* The tumour, on the point of the near shoulder, last opened, is healed up; but that below now contains pus. The one deeper seated is not quite so large, and has become diffused, but probably is forming matter. To be left alone for awhile.

*17th.* Opened the last mentioned, and dressed it.

*24th.* The abscess is well, and the wound grown up. The large tumour underneath is less.

*Feb. 15th.* The tumour that has been all along deep seated and underneath the others is gone very much less, and is of little importance, and she is got into excellent condition, and I think she will not give us any further trouble.

*April 5th.* She is now in good condition; has calved a good while ago. The tumour on the inside of the near shoulder is much less; but I believe it will now remain in the same indurated state as it is at present. The skin on the parts where the abscesses have been is three times as thick as natural.

## AN INQUIRY.

SIR,—At a Meeting of the Veterinary Medical Association held on the 11th of January, 1842, Professor Morton read the following, viz.:—

*“Extract from the Will of the late Professor Coleman, dated July 1st, 1839.”*

*“The Secretary, in continuation, remarked, that the stimulus thus given to exertion would perhaps be increased, when the members were informed that for three years previous to his death, Professor Coleman had placed in his hands £5 annually for the same purpose, so that he was in possession of £15. This, with the legacy, he considered a prize worth striving for, and he hoped that there would be many competitors for THE COLEMAN MEDAL.”*

Now, as I am not aware that any further notice has been taken of this matter, or that any competition ever took place for the same, or for the £15 said to be in the hands of Professor Morton, I most respectfully ask what is become of it, or why it is not offered for competition? or, as the seven years have expired, in what way have the Governors of the Veterinary College disposed of it?

I remain, Sir,

Yours most respectfully

W. A. CARTWRIGHT.

## TUBERCULAR ABSCESS IN A STIRK (OR STEER).

By WILLIAM COPE, V. S.

SIR,—Early in the month of December, 1852, I was called to visit a two-year-old incalved stirk of the short-horned breed. Upon my arrival, I found the animal to be somewhat tympanitic, with extremities cold, respiration slightly increased, the expiration attended with a peculiar short grunt, bowels torpid, visage dejected, pulse about 80 per minute, feeble, compressible.

The history of the animal was, that her owner had perceived her not to be doing well for some time past, had observed her coat to be staring, herself to often be looking



thin, with other signs of want of vigour and health in her constitution. She had been fed upon turnips and straw, and some inferior quality of hay.

The diagnosis, drawn from the symptoms and history of the case, was, that probably the animal was affected with some derangement of the digestive apparatus, as a consequence of the nature of her dietetics.

**TREATMENT.**—Ordered the legs rubbed and bandaged; the animal to be made comfortable as regards external circumstances. Prescribed a cathartic combined with a diffusible stimulant, with gruel as much as the animal would take, and a small quantity of bran mash.

*On the second day*, pulse the same; extremities warm; bowels unaffected; tympanitis increased, more dyspnœa as a consequence; introduced the trochar, and the gas which escaped through the canula burnt brilliantly with a pure white flame on the application of a lighted taper to it.

Ordered, Ol. Lini, Oj; Sp. Arom. Amm., ℥j; and the animal to be supported with gruel, as she had anorexia.

*On the third day*, found that she was decidedly better; bowels acted upon; more genial warmth in the integument; pulse less irritable, and fuller to the feel.

Ordered small doses of Carb. Amm., Gentian, and Ginger, in combination, night and morning; also removed the canula from the rumen.

*On the fourth day*, the intestines had become torpid; the avidity for food passed away; pulse 90; altogether worse.

Ordered Ol. Lini, Oj; c. Ol. Crot., mxxx.

*On the fifth day*, the bowels had again responded, but her pulse was feeble, breathing almost normal, and she had ceased to grunt; otherwise, there was not much improvement.

Repeated Carb. Amm. c. Gentian, et Zinzib.; and to be well supported by cooked and nutritious food. (C)

*On the sixth day*, found her bowels again confined, tympanitis again returned, and other symptoms augmented; reintroduced the canula, and secured it by passing tape around her body.

Continue the same aliment, and gave Chloride of Sodium, ℥iv, Gentian, and Ginger night and morning.

*On the seventh day*, the bowels were opened, and the animal collectively better. Medicine, &c. continued.

*On the morning of the eighth day*, still better. In the evening, after plugging the canula, distension of the rumen returned, which was relieved in two hours by Ol. Tereb., ℥j; Sp. Nit. Æther., ℥j; Sol. Alkalini, ℥j; Aquæ, Oj; administered in gruel. (C)

*On the ninth day*, distension had again recurred; the plug in the canula was removed, and the tympany had disappeared. Repeat Chloride of Sodium, Gentian, and Ginger. The bowels were open, and the animal fed tolerably well, ruminated, and appeared to slightly improve up to the twelfth day, when the canula was removed; the distension soon reappeared, and the animal became much worse, with bowels constipated, &c. She was again relieved by Ol. Lini c. Sp. Arom. Amm.

*On the thirteenth day*, better. Gave Carb. Amm., Gentian, and Ginger: attention to her forage.

*On the fourteenth day*, from my first visit, I found the animal much worse; distension of the rumen had re-appeared, making the respiration difficult; auscultation failed to detect any abnormal sound connected with the increased respiratory murmur, nor was any dulness elicited on percussion: from which results, and the occasional disturbance only of the respiratory process, I was led to consider that the lungs were not the seat of disease. During the whole of the time I had attended upon this animal, I had perceived a gradual loss of tone in the pulse, a stealthy decay of constitutional vigour, and an automatic waste of the animal tissues, a falling away, over and above what might be anticipated from the loss of function on the part of the digestive apparatus.

Hence I was led to prognosticate very unfavorably, and even to predict a fatal termination; basing this opinion upon the probable existence of some asthenic structural disease of some important viscus or viscera, intimately connected with the digestive organs, either by a mutual dependence upon each other's function, sympathetic connection through identity of some nervous agency, or from contiguity of structure or situation: all of which would alike interfere with the due performance of the healthy functions of those important organs; first, by tasking them with more than their ordinary share of labour; secondly, by directly or sympathetically affecting their functionary appointment; lastly, by mechanical obstruction.

After the animal had lingered on for some days, during which time it was necessary to keep the canula within the rumen, to prevent death from asphyxia, she was destroyed. Upon instituting a post-mortem examination, somewhat to my surprise it was found that the whole of the abdominal viscera presented an uniformly normal aspect, the character of each viscus being healthy of itself, excepting the comparatively blanched appearance of the three anterior stomachs. The muscular textures of the rumen and reticulum were pale and flaccid; the omasum was perfectly empty, not containing

a particle of *injesta* between its *plicæ*. These were all the alterations from a natural state of things that we could detect in any of the abdominal viscera, by careful observation. But on laying open the chest, we perceived an enormous tumour, situated centrally in the thoracic cavity, within the superior mediastinum; inferiorly placed to the posterior aorta; extending as far forward as the curvature of that vessel, and as far back as the bodies of the eighth or ninth dorsal vertebra. It was elliptical in form, its conjugate diameter longitudinally placed with the long axis of the body, situated between the duplicatures of *pleuræ*, which form the superior mediastinum, to the rough surface of the parietal portions of which it was slightly attached; though more firmly suspended by areolar tissue to the origin of the *longus colli*, and the bodies of the vertebral bones, under which it was placed. It had then the posterior aorta, &c. on its superior part; the *œsophagus* and *pneumo-gastric* nerves on its inferior, upon which it seemed to rest; for there was quite a deflection in their course at this part. It was more or less surrounded by loose areolar tissue, imbedded in which were several of the bronchial lymphatic glands, some of which were morbidly enlarged, having slight depositions of tubercular matter within their bodies, and some serous fluid in their adjacent tissues.

The tumour was next removed from its situation. All its connecting textures and investing membranes being dissected off, it was found to be a closed sac, having no communication with any external outlet, and weighing about 14lbs. Upon puncturing it, about two quarts of fluid, of a creamy yellow colour and consistency flowed out (altogether resembling pus), from which a most deadly effluvium arose. On more freely laying open the sac, it was found that its internal surface was covered with small *papillæ*-like protuberances, resembling granulations of an unhealthy character; upon and around which a large quantity of tubercular matter was deposited, and especially on that part which, when the tumour was *in situ*, and the animal in an erect or standing position, formed the floor of the sac: although gravity might augment the quantity found here, it was, nevertheless, easily detectible on every portion of its internal surface. The walls of the sac were of about three eighths of an inch in thickness on the average, though as much as half an inch in some parts, especially around its conjugate diameter, being thinnest and least dense around its transverse.

Like other abscesses, the walls were quite adventitious in character, appearing to be composed of pseudo-organised layers of fibrine, in a semi-vascularised condition; between



which layers, at various parts, isolated from each other, were ecchymosed patches, like depositions of the red corpuscles of the blood, within the meshes of the tissue. The fibrinous case of this tumour had made no fibrinous connection with either the œsophagus or the posterior aorta, or indeed with any other part, as might have been expected from its presence and pressure. The parenchyma of both lungs was healthy, nor could I detect the presence of any tubercular matter therein. The heart's walls were flaccid in texture, and might be considered slightly hypertrophied. Further examination failed to unfold any pathological condition of other parts.

**RATIONALE.**—From the symptoms, treatment, and pathological condition of the parts in this case, as recorded, it would be well now, perhaps, to endeavour to draw some practical inferences; or, indeed, seek to know what principles in the practice of veterinary medicine it confirms.

The majority of the symptoms shown by the animal are easily traceable to the appearances its *autopsia* disclosed. The ill-doing of the creature observed for some time previous to our attention being directed to her, and revealed as a part of her history, was a proof that the formation of the tumour was not the work of a week, or even of a month: by its gradual and stealthy progress it became so large as to interfere with the function of digestion; by its pressure or presence interrupting the passage of nervous influence along (through altering the vital integrity of) the pneumo-gastric nerves; which are known to proceed, in company with the œsophagus, to the stomachs, and to be the presiding power over two important processes in the animal economy, as implied by their name, *pneumo-gastric*, viz. respiration and digestion. But, as the morbid impression of the tumour upon the nerves was centrifugally made (with their admitted origin) to the pulmonic plexuses, formed for the respiratory function, hence it was that we had only the digestive, and, probably to a slight extent, the assimilative processes, interfered with. To the above explanation, as a cause of the frequent tympanitis, we would look, rather than to the mechanical obstruction of the tube by the tumour; for if the latter had been the cause, as might be supposed by some, of the tympany, by preventing the eructation of the gases generated in the rumen, should we not have had choking frequently present?—which never happened throughout the case, since the animal ruminated freely at various times during her illness. From this and the freedom with which she deglutited, we presume that the œsophagus was not materially affected, as regards its office, by the pre-



sence of the tumour; but rather, that the tympany was produced by the effects of the tumour upon the supply of nerve energy to the stomachs, arresting or retarding to an unusual length the process of digestion and assimilation, favouring the chemical decomposition and evolution of gaseous compounds from the aliment, and the passage of crude undigested matter into the intestinal canal, all combining to produce the symptoms that were shown. That such was the case is further borne out by the partial success of the treatment, so far as the conditional states of the animal indicated such proceedings; for every return of tympanitis and torpid intestinal function yielded to the measures adopted, so far as they were only the effects of a cause, which, latent as it was, still existed and progressed.

I suppose, from the dry vegetable matter in the rumen, and the inflammability of the gases which escaped when the canula was introduced, on the second day, that they were constituted largely of the carburets of hydrogen. The reason why chlorine in some form was not administered, is the fact that it does not act upon some of the compounds of carbon and hydrogen in the dark; hence, from the improbability of the sun beaming in the animal's rumen, the want of success attending its previous exhibition in analogous cases;—our faith has been shaken upon the utility of it, in a stage of gastric affections in oxen, &c. Although chlorine has been much lauded as an agent calculated by its great affinity for hydrogen to break up many of its binary compounds, I have nevertheless frequently witnessed its administration followed by results worse than useless, even in those cases of tympany where, from the long existence of chemical decomposition in the rumen, we were almost certain to have some compound of hydrogen evolved.

The introduction of its compounds into the list of medicines, backed by the undeniable fact of the great affinity of this elementary substance for hydrogen, has led to its adoption in cases of distended rumen, as if it had been a panacea for such affections under all their phases. Chemists, however, have long since demonstrated, that under conditional circumstances, it will not decompose some of the compounds of hydrogen. Hence it appears to have been a crochet upon which men hung the harp of their opinions, without questioning for themselves its practical utility.

We will now look to the supposed and most probable origin of the tumour. It will be remembered that some enlarged lymphatic glands were found around the sac, which contained in their texture some of that gritty, yellow, opaque, friable,

ill-defined substance, called *tubercular matter*; and that such also was found within the walls of the abscess to a large extent. From such a state of things, and what could be gleaned of the animal's origin and history, we are justified in concluding her to be of a *tubercular diathesis*; having stamped on her chart of life the disposition in her organic functions to produce and deposit from the blood the tubercular matter above described.

Although the lungs are usually the seat of the ravages from the deposition in this peculiar diathesis, producing phthisis pulmonalis, it does not follow that such need always be the case; for experience has shown that, when this idiosyncrasy is possessed, the matter may be deposited in a variety of situations, and thereby produce phthisis (or wasting), accompanied by a variety of symptoms: for instance, on the surface of membranes, both mucous and serous; in the substance of the brain or spinal chord, and their meninges; in areolar tissue, in glands, and discerning parts. I well recollect a case upon the same farm, of a stirk being affected with paralysis of one hind limb, inability to retain the fæces when in the rectum, incontinence of urine, and loss of power in the muscles of the tail. These all came on gradually, and nothing gave any relief. From the constant flowing of the urine, disease was set up about the vagina, excoriation of the skin, &c. The animal became a prey to flies and other parasites, wasted away, and was eventually destroyed; when it was found that a deposition of tubercular matter had occurred in the theca vertebralis of the lumbar portion of the spinal cord. It was placed along the inferior and lateral part, so as to press against the motor column of the chord, on the side affected, and had caused a good deal of disorganisation of structure in that tract; hence the loss of mobility in the limb, and the other symptoms.

Even the case before us is an illustration in which the lungs were not affected; but, where the deposition, no doubt, mainly occurred into the elaborating follicles of one of the bronchial lymphatic glands, where the matter accumulated by further accretion from the blood, until, by its pressure on surrounding vascular textures, it induced inflammation in them, resulting in the formation of a fibrinous case around the tumour, an effort of nature to envelope and isolate the disease, and limit to an extent its ravages; while the augmentation and pressure of the tubercular matter within, the resulting inflammation and suppuration, the disintegration of the structure of the gland, and the softening or solution of the gritty matter, progressed. Thus we get a sac whose in-

vesting membrane (whether pyogenic or not) goes on increasing in capacity, by throwing from its internal surface additional matter to distend its own tunics, which gradual enlargement comes at last to interfere, by its presence, with the duties and vital integrity of contiguous organs; inducing as a concomitant of the existence and collateral manifestation of a tubercular diathesis, phthisis of the animal organism.

Leaving your readers to deduce from these imperfect remarks upon an interesting case, such theories as they consider tenable, such derivable facts as are confirmative of existing principles, and then calmly to lay aside the rest,

I remain, &c.

ASHBOURNE; Feb. 21, 1853.

## OCCASIONAL ILL-CONSEQUENCES OF THE OPERATION OF BLOODLETTING.

BY JOHN BROWN, M.R.C.V.S., Whitefriars, London.

SIR,—If you should deem the following worthy of a place in your valuable periodical, you are quite welcome to insert it. It is from an ardent and sincere desire for the advancement of our profession that I think it a duty and a privilege incumbent on me, to do all in my power to add something to the general fund of Veterinary knowledge; for as with nations as well as smaller communities, what is it which constitutes its true greatness? Not its buildings, however great and magnificent; but its individual members—each of whom may strengthen, while each may weaken.

The few remarks I have to make are on the occasional ill-consequence of Venesection, called *Phlebitis* or “Inflammation of the vein.” When I first began practice, I had a great many bad cases of “Inflamed veins,” after bleeding, which I could not at first find out the cause of. I had always strictly adhered to the advice both of Blaine and Coleman.

The first, at page 613 of the 4th edition of the ‘*Outlines of the Veterinary Art*,’ directs, after the pin has been introduced, “to wrap a few hairs or a little tow; but observe that it be *lightly* wrapped, otherwise it may strangulate the part, and produce festering instead of healing at once by the adhesive process.” The latter, in his ‘*Lectures*,’ used to

caution us not to keep the pin in longer than "36 hours;" both of which cautions I believe to be erroneous—to have been, indeed, the cause of the great number of inflamed veins which fell to my lot.

In the first volume of the 'Transactions of a Society for the Improvement of Medical and Chirurgical Knowledge,' published in 1793, there is a valuable paper, by John Hunter, entitled 'Observations on the Inflammation of the Internal Coats of Veins.' He says, at page 25, "The operator on this animal (the horse) does not always take sufficient care to close up the external wound; for, although the method usually employed would at first sight appear to be a good one, that is, by a pin passed through the wound from side to side, as in the hare-lip, and over-tied by a thread or hair; yet, if not executed with sufficient attention, I should be inclined to believe that it is the very worst, since it very readily promotes inflammation in the cavity of the vein, either of the adhesive or suppurative kind, according as the ligature does or does not communicate with the cavity."

I hope these few remarks will be found useful, if not to the elder at least to the younger branches of the profession; and prevent those unpleasant and troublesome cases of inflamed veins occurring in their practice, which are caused, in my opinion, either by the slovenly and insecure manner of pinning up the orifice, or of taking the pin out too soon, before the lips of the wound have firmly adhered.

I am, dear Sir,

Yours truly.

23, Whitefriars Street; Feb. 9, 1853.

## ON THE INTERNAL USE OF THE ACETATE OF LEAD.

By ALFRED J. ROGERS, M.R.C.V.S., Knightsbridge, London.

DEAR SIR,—Although the following observations may contain little novelty, Professor Morton having recommended the use of the acetate of lead, in all cases of internal hæmorrhage, they possibly may not be deemed valueless, as I believe there is a general impression in the profession that the acetate of lead is a rather dangerous remedy, apt to produce paralysis, colic &c.; an impression I believe to be unfounded, provided the remedy be properly administered,



that is to say, in such manner that it remain *acetate*, and not be converted into *carbonate*, of lead: an object easily accomplished either by employing distilled water for its solution, or by adding a sufficient quantity of acetic acid to keep it in solution, in common river or spring water.

The diseases in which I have found the acetate of lead useful are hæmoptysis, hepatorrhœa, and hæmaturia.

I have never known a case of hæmoptysis, which has not immediately yielded to it.

In hepatorrhœa, I have had one remarkable case, in which its effect was decided; although the case proved a fatal one, a result which we must look for. I shall relate it:—

On the 22d Feb., 1851, I was called to attend a bay mare, the property of F. W. S., Esq., suffering from the following symptoms:—Falling down suddenly in her stall, frequently on her haunches, membranes perfectly blanched, excessively weak, almost imperceptible pulse.

Any attempt to hold up her head, for the purpose of giving her a draught or ball, even for half a minute or less, caused her to fall.

I immediately pronounced it a case of hepatorrhœa, although the symptoms were somewhat dissimilar to those usually exhibited, a circumstance I attributed to the probability of the peritoneal coat of the liver not having been ruptured. I ordered a draught, containing ʒij of acetate of lead, to be given immediately in half a pailful of water: leaving directions with the groom to supply her with no other fluid, and not to turn her round in the stall or allow her to make any movement whatever; in fact, to keep her in a state of perfect rest, so as, if possible, to admit of the chance of any clot of blood that might be effused becoming firm and organised, or absorbed.

She took the medicine in this way, and, with the occasional recurrence of paroxysms, which were always relieved by the same treatment, lived for a fortnight; at the end of which time she fell down and died suddenly, before I had time to reach the stable.

*The post-mortem examination* revealed a large crucial rupture of the liver, through the peritoneal coat, holding an enormous clot of blood, the exact duplicate in magnitude and shape of the liver itself; so that the peritoneal coat was entirely separated from the liver on the side of the rupture.

Besides this, the cavity of the abdomen contained a large quantity of effused blood, mixed apparently with serous fluid.

Although this case terminated fatally, still it shows the utility of the medicine in arresting the hæmorrhage.

The next case I shall adduce is one of hæmaturia. A gray gelding, the property of W. W. C—, Esq., which I first saw January 1st, 1853, at the time the animal was labouring under an attack of inflammation of the liver, from which he was recovering, when on the 5th of January he was seized with hæmaturia, accompanied by irritability of the bladder. The urine was passed at the short intervals of from ten to twenty minutes, in small quantities; the last portion passed each time containing blood, sometimes in clots, sometimes the colour of coffee-grounds, but more frequently rather brighter in colour, though not arterial in character. Constant fomentations to the loins were ordered during the day, followed by sinapisms, though applied but with little effect, until, on the following day, I administered  $\mathfrak{z}\text{ij}$  of acetate of lead in a draught, which in a short time not only greatly relieved this particular symptom (hæmaturia), but was followed by a general improvement in the animal's health. On the following day, blood still passing, though in smaller quantities and at longer intervals, another draught, the same as before, was given; on the third day there was no appearance of any blood, but it was deemed advisable to give half a draught.

From this time the horse rapidly recovered his appetite and flesh; and on the 10th was convalescent.

A similar case, in which I was consulted by a brother veterinarian, yielded with equal readiness to the same treatment.

With regard to the dose, Prof. Morton prescribes  $\mathfrak{z}\text{ss}$  to  $\mathfrak{z}\text{j}$ . I have usually given  $\mathfrak{z}\text{ij}$ , and by an accident discovered that a much larger dose may be given with impunity: a circumstance that I think we need not be much surprised at, if we bear in mind the large doses of sulphate of copper the stomach of the horse will bear, when the salt is given in solution. In proof of this I may mention that, some time since, a temporary assistant of mine accidentally substituted  $\mathfrak{z}\text{iv}$  of acetate of lead for  $\mathfrak{z}\text{iv}$  of Pulv. Pot. Nitr. in six balls. Two horses took, each, two of these balls, making  $\mathfrak{z}\text{j}$  of the acetate of lead, in two days, for each horse, without any perceptible effect following in either case.

I believe it would be prudent, however, always to give half a dozen small doses of sulphur, say  $\mathfrak{z}\text{iv}$  daily, after the acetate; since this medicine removes lead, as well as mercury, from the system.

I remain, &c.

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## COMPOUND FRACTURE OF THE JAW.

BY JOHN ROALFE COX, M.R.C.V.S., London.

SIR,—I have much pleasure in complying with your request, and herewith forward the particulars of the case of “compound fracture of the jaw” recently under my care, which is perhaps the more interesting from the opportunity its situation afforded of observing the period in which the progressive stages of reparation of bone take place in the horse. It was an *aged animal*, who met with the accident through the kick of another in the following manner:—The “pair,” it appears, were waiting with the carriage at the residence of the gentleman to whom they belonged, on the night of the 1st of January; when one became fidgety, got over the pole, and in thus plunging both horses fell. They continued to kick themselves out of harness, and in so doing the above injury was sustained. Upon attending the horses, I found that *the one* only suffered from skin wounds, from which he soon recovered; but on seeing *the other*, the peculiar contracted and flattened appearance of the cheek rendered the more serious nature of his injury sufficiently obvious. The main fracture was directly transverse, commencing just anterior to the spot where the sub-maxillary artery crosses the bone. On examining the fracture, the anterior division of the bone remained in statu quo, from its connection at the symphysis being undisturbed; but the other portion of it could be forced sideways to and fro to a considerable extent, and, of course, with corresponding crepitus; so doubtless from this freedom of motion the fracture took a course directly between two of the molar teeth. I also considered there was, in addition to this, an oblique crack in the bone, not completely fractured, from the circumstance that on examining with both hands the anterior fixed division of the fracture, *per se*, I distinguished a second “crepitus,” but considerably fainter, and this caused much pain to the animal. Opposite to this spot, and about three parts of an inch in front of the main fracture, was a raggedly-cut wound completely through the skin, as though inflicted by the caulking of the shoe, and from it was oozing discoloured serum. In setting the bone in position there was a little difficulty, owing to the edges having become crossed, the one upon the other, and “caught,” as it were. This, however, soon

being surmounted, I proceeded in the following manner:—a broad splint of wood, of sufficient length to extend from the neck of the maxilla backwards nearly to the posterior edge of the same, was very thickly wrapped with tow, in shape to correspond exactly with the irregular surface of the face, as the hollow in front of the masseter muscle, &c., by which contrivance a flat and equal bearing was obtained. The splint thus arranged was then bound in lint, to secure the padding in position. Two smaller splints were similarly prepared, one for the inner side of the bone lodged within the channel, the other to support the bottom edge. The side of the splint intended to be in apposition with the parts was smeared with warmed adhesive pitch plaster, and carefully adjusted. The three were then confined by regular rolls of long linen bandage in the form of a figure of 8, passing round the nose and behind the ears, making the cross under the jaw. Stitches were put through the rolls of the bandages in several places, and effectually prevented any slipping. A kind of half hood, without ears, was worn as a covering to the whole. I may mention that, at this period, the apparatus admitted of the mouth opening to the extent of rather more than an inch between the incisor teeth. The horse was placed in a comfortable box, and nothing allowed him but smoothly-made gruel, of which for the first two days he partook but sparingly, having been purposely nauseated with a dose of aloes, in the hope of insuring a quiet state of the injured parts. After the second day, the “giving” of the bandage afforded an inch and a half space between the incisors, which was the utmost liberty I permitted for many days. He now took sufficiently of his gruel, and with ease, for some days, when, tiring of it, he was fed with linseed tea, by means of the tube of the enema syringe passed between the teeth. It was not, however, necessary long to continue this, as his appetite for the gruel returned. Nothing whatever was done to the wound, now hidden from view by the bandaging, which, however, did not touch it, the projection of the splints, one above, one below, protecting it; for it was obviously most desirable to ward off all source of irritation that might possibly excite deep suppurative action in a wound so immediately connected with fracture. For the first four days the whole side of the face was kept wet with evaporating lotion, and the constitutional tranquillity which followed soon told there was no further trouble to be apprehended on the score of the wound.

On the eleventh day, the bandaging was readjusted, when the splints were found to be firmly adherent, and not in the



slightest degree shifted; and now an examination was made of the fracture itself. No *crepitus* at all existed, the ends being united by the primary soft material which *still admitted of bending movement*. The wound was dry and cicatrised, all but a small space that a fourpenny piece would cover. In re-applying the bandage, more space was allowed between the incisors, and from this time the horse was enabled to take bruised oats and bran, scalded together, and given to him rather sloppy, upon which he maintained his condition exceedingly well.

*On the twenty-third day*, noticing that the end of the underneath splint was causing a sore by its pressure, the bandage was again removed, as also this particular splint, which was not afterwards used. There was now little or no motion, and callus had formed at the union about the size, or rather more, of a large cedar pencil, marking the exactly transverse direction of the fracture. The original wound completely healed. The bandaging was re-applied as before, with only the two side splints.

*On the thirtieth day*, the inner side splint was discontinued, and in its place the channel padded with tow. Not the slightest movement could be effected at the seat of fracture, and the callus itself had become more defined. The horse continued to keep up good appearance by taking plentifully of his cooked food, which from this time was occasionally alternated with feeds of dry bruised corn. During the seventh week all appliance was discontinued, the jaw presenting perfect uniformity, with only a very slight ridge of callus to be felt on the inner side. On now examining the mouth, the row of molars on the injured side was found to be uninterruptedly straight; but all the teeth had become extremely angular and sharp. He could now eat his regular feeds perfectly; but the muscles, from having been kept comparatively inactive, were not now equal to the force requisite for masticating hay, which was offered for the first time and 'quidded;' but of this weakness he each day improved, and in the course of a week or so could eat hay and everything else as well as ever. After leaving here, his owner afforded the horse a little longer rest in a loose box, and he has now returned to his harness, as good as before the accident.

Believe me, &c.

MOUNT ST., GROSVENOR SQUARE.

P.S. I should have mentioned, that, being detained on another case, the fracture occurring over night, was not done up in the manner described until the following morning, the first occasion of my personal attendance.

## ON THE NATURE AND TREATMENT OF DISTEMPER.

BY SAMUEL BROWN, M.R.C.V.S., MELTON MOWBRAY.

SIR,—In my former communication on the distemper in dogs,—which may be found in vol. IX of 'THE VETERINARIAN,'—it will be seen that my views on the nature and treatment of that peculiar disease were, in some measure, confirmatory of those which were entertained by the late Wm. Youatt, whose zeal in our cause, and indefatigable exertions, in conjunction with your own, as Editors of 'THE VETERINARIAN,' have done more, in my opinion, to advance the progress of veterinary science and raise the social position of her votaries than could have been accomplished by individual exertion in a century. Had it not been for the circumstance of the veterinary profession having a periodical devoted to watch over its interests and to advance its progress, those valuable essays which grace the pages of 'THE VETERINARIAN' would, in all probability, not have been before the public, nor their worthy and well-meaning authors have been known much beyond the sphere of their respective connections. Hence it is highly probable that 'THE VETERINARIAN' has had much to do with the improved and more extensive system of education which is now given at the Royal Veterinary College, as well as with the obtainment of our charter of incorporation, which has given us a professional name, and elevated our calling far above the old school of farriery. Much, too, has been done, through the medium of your journal, by way of establishing our professional standing, both by some deceased and now living members of the profession; and if those early advocates of veterinary reform should survive the obtainment of an Act of Parliament exempting the body politic from serving parochial offices or on juries, they will feel assured that their labours have tended to smooth the professional path for the junior members of the profession. Although such legislative enactment might tend to raise the respectability of our profession in public estimation, we cannot suppose that it would confer the same degree of respectability upon individual practitioners, whose estimation in public opinion must necessarily depend upon our own conduct. But I apprehend that our application to Parliament for an *Exemption Bill* is not based upon professional, but upon public grounds, and upon the principle of our time being public property, and as such ought to be considered

of more value when occupied in the discharge of our professional duties than it could otherwise be when taken up by the duties of parish offices or in serving on juries. But enough of this digression,—one which you and your readers will please to pardon.

We might suppose that the indefinite term *distemper* would be applied to some simple febrile affection, and not to an inflammatory action of the mucous membranes, in which every action and function of animal life becomes involved in disturbance. But we are aware that, when increased vascular action is commenced, either in a secreting organ or in mucous membrane, that an impairment of function is the necessary consequence. Hence the alteration in the nasal and gastric secretions, and the impairment of the functions of respiration, digestion, and chylication in distempered dogs. In whatever form distemper shows itself—whether it be seated in the membranous lining of the air-passage, the alimentary canal, or both—the disease is invariably accompanied by its peculiar and characteristic smell, which enables the veterinarian's olfactories to distinguish it from any other canine malady. It would be superfluous to occupy your space by enumerating the symptoms which supervene on an attack of inflammatory action in the mucous membranes: suffice it to say, that they vary according to the extent and termination of that morbid action, and clearly indicate the seat of the disease, mark its progress, and point out whether it be seated in the membranous lining of the nostrils, extending down to the respiratory tubes, or through the mucous coat of the alimentary canal. In some seasons, or even at different periods of the same season, the distemper assumes the catarrhal character; but at other times the mucous coat of the alimentary canal appears to be the primary seat of disease. But, whichever of these membranes becomes primarily affected, it is by no means an unfrequent occurrence to see them both involved in this peculiar, and perhaps specific, morbid action. The distemper may be regarded as being tolerably curable if early and suitable remedial measures are had recourse to; but at the same time it is requisite that every possible attention be paid to cleanliness and every other comfort that will be likely to be conducive to the restoration of health. But in those cases which have been either neglected or incautiously treated by the administration either of large doses of drastic purgatives or emetics, we have but little chance of success. The disease is dangerous enough in itself, and requires soothing much more than aggravating treatment.

At the commencement of the catarrhal form of distemper, little more medicinal treatment is required than a small dose of Hydrarg. Chlorid. which answers best when guarded either with Pulv. Opii vel Ext. Hyoscyam. Eight or ten hours after the pill has been given, the patient may have from ʒij to ʒvj of Mag. Sulph. dissolved in as much warm milk and water, mutton-broth, or whey, selecting that kind of slop food to which the dog gives preference. The quantity of the medicines should be varied according to the size of the animal. But in case the appetite should be too much impaired for the Mag. Sulph. to be taken in the food, then a dose of Ol. Ricini may be given, which will answer the purpose of evacuating the bowels. During the febrile stage of distemper the patient should be kept upon slop food, which should be flavoured with salt. Weak mutton-broth, thickened with pearl-barley, milk-porridge thickened with oatmeal, or whey, form the suitable kinds of food, and dogs which have been previously kept on animal food usually eat them with some degree of avidity. But, if the inflammation should progress, and the febrile symptoms run high, some fever medicine may be given with advantage: Potass. Nitr., Pulv. Lini, to which may be added a few drops of Vinum Antimonii sufficient for each dose. These medicaments may be formed into a mass, divided into pills, and be given once or twice a day, as the nature of the case may require. The fever medicine may be given for three or four days, by which time, if the case be going on well, the inflammation will have nearly subsided, when the patient will require little more than kind treatment and a well-regulated system of dietary, which should be continued for a considerable time, even until all ailment has disappeared and the dog has regained his wonted spirits and condition. But if, instead of this short and desirable termination of the complaint, the inflammatory action should continue to increase and extend down the membranous lining of the trachea, bronchi, air-cells, or even to the parenchymatous substance of the lungs,—in such case, counter-irritants may be applied down the course of the trachea and on both sides of the chest. The anodyne tinct. of lytta answers tolerably well, and is a compound of lytta, opium, and antim. tart. in spirit above-proof. At the same time, the fever medicine should be persevered in until a muco-purulent discharge issues from the nostrils, which is indicative of the termination of the inflammatory action in the membrane lining the air-passage. In this stage of the malady, vegetable tonics, in combination with potass. nitr. et camphora become admissible, and may be given in small doses



once or twice a day, according to the exigency of the case ; but care should be taken not to nauseate the stomach with too much medicine, as the appetite is occasionally so capricious that it requires coaxing with dainty slop food. Some dogs, but more especially pets, prefer a mixture of tea and new milk, flavoured with sugar, which appears to them delicious, and may be, for aught we know to the contrary, the most salutary kind of food that can be taken by the dog, during the subsidence of the severe inflammatory action and febrile affection constituting distemper.

If early remedial measures are adopted in distemper, it is rather an unusual occurrence to meet with a case in which the mucous coat of the alimentary canal becomes secondarily attacked with inflammatory action. But cases occur in which functional disturbance of the digestive system supervenes, and impairment in the functions of digestion, biliary and other secretions, accompanied with diarrhœa, ensues, as the necessary consequence ; whilst epilepsy, paralysis, and those convulsions which occasionally pervade the muscular system, may be the inevitable result. However, it is by no means an unfrequent occurrence to meet with cases of distemper in which the mucous coat of the alimentary canal is the primary seat of disease. The dog being observed occasionally to eat grass, to be slightly off his feed, and rather out of spirits, may be regarded as the premonitory symptoms in these cases. But the most prominent diagnostics are—peculiar smell, dry nose, furred tongue, shrunk eyes, which are at first rather watery, but after a time become muco-purulent, unwillingness to move, loss of strength accompanied with rapid loss of flesh, reeling gait, and little or no appetite. In some cases the bowels are constipated, and the voided excrement has mucus adhering to it ; in others they are lax, and approach to the peculiar diarrhœa. In the former state of the bowels Pil. Hydrarg. in combination with Ext. Hyoscyam., and from the sixth to half a grain of Pulv. Ipecac., followed by a dose of Ol. Ricini, answers tolerably well ; and, if given at an early stage of the disease, and due attention be paid to the dog's food (which should be light, and easy of digestion), little or, perhaps, no more medical treatment will be required to restore the animal to a state of health. But if, instead of this favorable result, the morbid action and functions of the digestive system should progress, the pills may be given once a day, and continued for several days in succession, and if the patient should express abdominal pain, it may be relieved by a laxative emollient, as the Ol. Olivæ Opt. cum Aqua, which may be rendered miscible either by an alkali or the yolk

of an egg; but if an anodyne should be required, the addition of either Pulv. vel Tinct. Opii will answer the purpose. But when diarrhœa is an early and predominant symptom, the first indications of treatment are to allay the morbid sensibility of the mucous coat of the alimentary canal, and to check the frequent evacuations of feculent matter. These indications may generally be attained by the administration of Hydrarg. Chlorid. in combination with Pulv. Opii, which may be given in minute doses once or twice a day; and when diarrhœa supervenes upon the usual symptom of the malady, these therapeutic agents form an efficient remedy, as it arrests the alvine flux, and excites the mucous coat of the bowels to a more healthy action and function. Such results being attained, light vegetable tonics, suitable food, and kind and gentle treatment, will frequently restore the patient to a state of health. But the convalescent dog requires great care, as fits, partial or general paralysis, and convulsions, occasionally supervene, which render the patient a pitiable object. Some dogs, however, are so tenacious of life, that they are physically able to bear up under severe attacks of distemper; and although they may have the disease in every variety of form, they will ultimately recover. But however successful we may be in the treatment of distemper when the patient is kept on our own premises, we need not expect to be equally so in general practice, as we meet with but few persons who will undertake the trouble, devote the time, or pay for the attention so necessary which is required to restore the health of the apoplectic, paralytic, or convulsive dog.

As these practical facts and observations are the result of time and some experience, probably they may be regarded as a general outline of the nature and treatment of distemper; but cases occur which require such auxiliary remedies and modifications of treatment as the practised eye alone can convey to the mind of the Veterinarian, whose pathological knowledge will enable him to select suitable therapeutic agents, in order to arrest the varying symptoms, and suit the capricious nature of the complaint.

*March 12, 1853.*

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## GLANDERS OR NOT?

SIR,—Should the following case be of sufficient interest for publication, you are at liberty to insert it in your Journal.

On the 6th September last, my attention was drawn to a low-bred horse, in fair condition, for opinion and advice. According to the owner's account, there had been a discharge from the nostril for some time, and he had previously had a glandered horse in his stud. Upon examination, I found a copious and adhesive discharge from the off nostril only; submaxillary gland, on the same side, enlarged and adhering; a large ulcer upon the schneiderian membrane, and two smaller ones near it.

From these symptoms, coupled with the history of the case, I considered the horse glandered, and gave very little hope of benefit from medical treatment.

The proprietor, however, was willing to hazard a little expense, and so determined to give the patient a *fortnight's* trial! The subsequent treatment to be governed by the result of that probation.

After ordering the horse a loose airy box, with generous diet and gentle exercise daily, I touched the ulcers with lunar caustic, and repeated the same the following day. The horse took, in solution,  $\text{ziv}$  Cupri Sul., with gruel. The medicine produced violent griping pains, which were combated with T. Opii, Car. Sodæ Sol., and plenty of wheaten gruel.

For one day, the medicine was discontinued, and the abdominal pains having ceased, the horse took daily, in solution,  $\text{ziii}$  Sul. Cupri, which mode of treatment being continued for fourteen days, the discharge had so diminished as to lead me to consider the case more favorably, particularly as the ulcerations had, during this time, altogether disappeared. I therefore ordered the medicine to be continued as before, and, in less than a month from the commencement of the case, ceased to administer the drinks, as the owner, judging from the subsidence of all the symptoms, considered more medicine to be superfluous.

The enlarged submaxillary gland had been dispersed,—the ulcers and discharge had likewise disappeared.

Since which time the patient has followed his usual work without the least symptom of a relapse, although I have frequently examined it.

If my diagnosis was correct, and the patient was really glandered, I think the brief space of time must have ex-

ceeded the most sanguine prognosis. I should like to hear, Sir, whether you consider it a case of glanders or not?

*Remarks.*—I, of course, take no merit to myself for having exhibited a remedy so strongly advocated by Professor Sewell, but wish to observe that, as the horse was very restive at the time of receiving its medicine, the grooms were obliged to draw the head up to a beam to exhibit the draught, (an objectionable practice you will say,) the consequence was that the medicine caused the horse to cough, and a portion of the solution was *frequently regurgitated through the nostrils*, thus applying it *topically* as well as constitutionally. How far this local application became an adjuvant becomes an inquiry, and I mention it as a suggestion.

Professor Sewell administers the sulphate in such large doses, that to prevent the erodent effects upon the stomach, he makes it *imperative* that the salt should be exhibited *in solution*. May not the same thing have taken place in his successful cases and yet the *topical* application of the solution have been unnoticed?

Perhaps, Sir, some of your many correspondents, whose opportunities allow, may like to carry the idea out, and report thereon, for my own part I shall not fail to do so should circumstances permit.

In the present day, and with the preconceived theories of glanders, it may, perhaps, subject the writer to no small degree of ridicule, to recommend local applications, but without aspiring to be the inventor of any British hum—(beg pardon, I should have written remedy). I should like, in addition to the internal administration of the Sol. Sul. Cupri, to hear the results of a fair trial of the solutions of the Sulphates of Copper and Zinc to the sinuses of the head and nose (in incipient cases) also.

From witnessing the effects of the *combined* salts, in other cases, I should like to give them an extended trial in this; I therefore make the suggestion in the hope that some of your numerous and persevering correspondents may make the trial which my limited opportunities scarcely allow.

Hoping your criticism may not entirely annihilate, I beg to subscribe myself,

Sir, yours faithfully,

W. G. REEVE.

1, ELIZABETH ST., EATON SQ.; 9th March, 1853.

\*.\* We cannot imagine Mr. Reeve's case to have been one of *genuine* glanders. We have, in our time, had such cases ourselves, and have been led away by the *ignes fatui*.—  
ED. VET.



## WOUND IN THE ABDOMEN: REMOVAL OF OMENTUM.

BY A PUPIL.

March 8, 1853.

SIR,—Being a constant reader of the ‘Veterinarian,’ and not having seen recorded in its pages anything exactly analogous to the following, I transmit you a brief outline of a case which has lately fallen under my observation; and which, if found by you worthy of insertion, will much oblige a pupil who hopes one day to be admitted into the profession of which you are a distinguished member.

I remain, Sir,

Your obedient servant,

HENRY HOWSE.

*A pupil of MR. JEKYLL’S, Lincoln.*

*Sunday, Nov. 7th.* I was requested to attend an aged cart-horse, the property of a higgler residing in Newport, Lincoln. On my arrival, I found the animal suffering from a severe wound in the near side of the abdomen, between the cartilages of the fifteenth and sixteenth ribs, through which protruded a portion of omentum, about two feet long, and half an inch in diameter at the lower end, and about one inch at the upper. Pulse, breathing, and general appearance of the animal, natural. I removed the substance as closely as possible within the wound, and reduced the remaining portion. A suture was then passed through the lips of the wound. I recommended the application of long-continued fomentations over and around the site of the injury. I administered an aperient draught to the animal, and ordered him to be fed on sloppy bran-mashes, and to have chilled water.

*Monday, 8th inst.* Found my patient’s bowels relaxed; pulse 72 in number, strong and full in character. Owing to his age and extremely low condition I did not think it advisable to bleed. He was breathing a little quicker than on the previous day, and evinced much pain and tenderness on his side being pressed. I removed the suture, to allow of a free escape of matter from the wound, and ordered the same food to be given him as before.

*Tuesday, 9th.* Considerable swelling around the wound and along the lower part of the abdomen; breathing shorter

and quicker; pulse about 72. I directed the fomentations to be discontinued; applied a strong blister around the wound, and lanced the abdominal swelling in several places. His dung being pultaceous, I did not give him any medicine.

*Thursday, 11th.* The horse is feeding well; pulse 70, but not so strong as before; breathing, natural; conjunctival membrane slightly injected; dung getting harder; repeated the aperient dose.

*Friday, 12th.* Pulse 64, and much improved in character; breathing more easy and quiet; extremities warm; appetite good; bowels responding to medicine. Apply a mild blister to the side, and continue diet as before.

*Saturday, 13th.* I find my patient's pulse is much improved, it having fallen to 56. From this date, improvement was regular and continuous. Three weeks after, the wound was quite healed, and, as the animal in every respect appeared quite well, he was put to his usual work, at which he continues without manifesting any symptom of inconvenience from the loss of the piece of omentum I removed.

Colts, very soon after castration, in some few instances, are found to have a portion of omentum protruding through the wounded scrotum. In such cases, it is a well-established fact that no bad consequences are likely to follow the removal of such omentum. The case which I have attempted to narrate will go far to show that omentum may be removed from the abdomen of a horse, without any serious after-results. The constitutional irritation in the preceding case arose probably more from the opening into the serous cavity than the removal of the adipose tissue.

53, NEWLAND, LINCOLN.

\* \* This is an interesting case, and was judiciously treated. Animals do not complain of the loss of omentum.  
—ED. VET.

## HYDROPHOBIA.

DEAR SIR,—Will you be kind enough to give your readers and subscribers the *outline of the treatment of "Hydrophobia,"* as recommended by Dr. Marshall Hall, in his paper in the *Lancet* for the 12th of February, 1853.\* Dr. Marshall

\* We will look for the paper.

Hall, besides being an able physician, takes a great interest in zoology. While I am now writing, requesting the above favour, I think it right to add the following particulars, hints and suggestions, concerning the treatment of Hydrophobia:

#### A CURE FOR HYDROPHOBIA.

Mr. T. Wells, late landlord of the Mad Dog public-house, at Little Odell, was well known in the locality for being in possession of a prescription for an efficacious drink against the bite of a mad dog; hence the origin of the sign of his public-house. We have heard of the antidote he prepared having been successfully administered, in several instances, to cattle, after having been bitten by a rabid animal. We know not if he has bequeathed his valuable secret to any one of his representatives. It has been said that, although in straitened circumstances, he has refused as much as £100 for the copy of the prescription.

#### REMEDY FOR THE BITE OF A MAD DOG.

A correspondent of the Leipsic journal, named Gastell, now 82, has made public a remedy which he has used for fifty years with success:

“RECIPE.—Take, immediately, warm vinegar or tepid water; wash the wound clean therewith, and then dry it; pour then upon the wound a few drops of muriatic acid (because mineral acids destroy the poison of the saliva) by means of which the evil effect of the latter is destroyed.”

Why not administer muriatic acid in large doses, well diluted, every three or four hours, with an infusion of Columbo root? Muriatic acid is well known as both tonic and anti-septic; and this leads me to ask whether a hydrophobic dog was ever opened after death, to see if there was any congestion of the brain, or any derangement of the stomach, or what signs, &c.? For, a friend of mine considers that dogs that are frequently chained up in hot weather, and have not sufficient exercise, have attacks of apoplexy, which induces Hydrophobia. He therefore *bleeds* all his dogs once a year, and that in summer!— Now, I propose to add a few drops of muriatic acid to the dog’s water during summer, beginning with one drop the first day, and so on, &c., &c., since the danger lies in the saliva, and mineral acids, we have just heard, destroy the poison of the saliva.

An Irish friend of mine, well conversant with the treatment

of dogs, recommends, as efficacious, washing the bitten parts with whiskey alone, or with whiskey and salt.

Trusting that you will favour your readers with the outlines of Dr. Marshall Hall's treatment, and that you can find room for my paper,

I remain, dear Sir,

Yours faithfully,

J. B. N.

The following pills have been administered in hydrophobic patients:

Disulphate of Quinine, 12 gr.;

Powdered Opium, 3 gr.;

Confection of Opium, 10 gr. Mix.

Make up into twelve pills, of which one may be taken every four hours. This was tried in Holland last year with success.

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### RABIES CANINA.

BY HARRY DAWES, M.R.C.V.S., *London*.

RABIES CANINA is a disease, your readers are well aware, that is peculiar to the order *canina*, and, from its being solely confined to it, it rarely happens that veterinary surgeons have opportunities of watching the affection through its various phases; but, fortunately for myself, several cases have occurred during the past year, to which my immediate attention has been attracted, and if you think fit to apportion a spot in your valuable periodical for their relation, accompanied with a few, perhaps, vague remarks of my own, I shall feel ever grateful: perhaps it will tend to provoke more able pens than mine on this important subject.

CASE I.—An aged, small terrier dog, belonging to S. Jennings, Esq., which had not been loosed for months, he being naturally ill-tempered and disposed to bite all strangers who came within his reach, on the 15th of May last, was observed to be unusually dull, endeavouring to hide himself amongst the straw of his kennel, and to shun passers by, and to refuse his food. During the previous night, he amused the neighbours with anything but an harmonious howling in a sort of *alto tenor discordant* key. I was requested to see him on the 16th. His gait was staggering or reeling.



*Strabismus* was apparent in his countenance ; he walked to and fro as if following some invisible object, making an occasional snap at it; would lie, or rather fall down, get up and shake himself, and howl until he was nearly choked with an accumulation of viscid saliva. Upon presenting a stick to him, he bit it, but did not shake it. He was secured, and his mouth was tied up for a time, to admit of an examination. The stomach appeared much distended; and it had been observed that he had lost flesh considerably during the last week or two. An emeto-purgative was administered, consisting of Hydrargyri Chlor. et Antim. Potass. Tart., āā gr. j, which operated speedily. He vomited much grumous matter, intermixed with straw and foreign substances. My opinion was formed at once as to the disease and its results. I communicated the same to his owner, who wished it to be destroyed. I begged he might die a natural death, and as his hours were numbered, he acceded to my request. On the 17th, ulcerations were apparent on the transparent cornea of both eyes, and when water or any other liquid was presented to him, he plunged his nose into the fluid as far as his eyes, and, in the attempt to swallow, would become convulsed, fall, roll over, and remain unconscious for some time. Natural food he would not touch, but he was constantly gnawing the bars of the crate, in which he was kept. Once he was observed to void his excrement, and eat it with avidity. His strength gradually diminished, and he died on the 18th.

A POST-MORTEM was made. The stomach full of foreign substances, as straw, hair, and splinters of wood. General blush of inflammatory action all over its surface, with three or four spots of *ecchymosis* about the greater curvature. Larynx and pharynx full of straw and mucus, with some considerable degree of congestion around the glottis. The brain and its meninges were likewise much congested; the heart full of black blood, and its superficial vessels turgid. This dog was not supposed to have been bitten by another, but the affection thought to have originated spontaneously.

CASE II.—*Snob*, a black retriever, five years old, the property of Sir Henry Meux, Bart., was bitten on the 18th September, 1852, at Dundraggon, in the Highlands of Scotland, by a shepherd's colley, who died shortly after in a rabid state; but not before he had inflicted serious injuries upon many very valuable dogs belonging to Col. Hugh Baillies, and an immense number of sheep. They were all destroyed and buried. A child was bitten about the same time in the hand; but I am happy to state that no ill effects have at present appeared. Symptoms of unusual dulness

and inappetency were first observed at Theobald's Park, Herefordshire, after their return from Scotland, on the 28th of November. I was consulted on the 30th, and went to see him, and likewise another, whose case I will relate shortly. I was satisfied as to the case and its results. This dog had been bitten in the neck; but no cicatrices were apparent, although he kept continually scratching the part with his hind-foot, and biting his penis. He died on the 2d of December. The same symptoms during life were present as in case No. I., with the additions I have already described. And the *post-mortem* examination enabled me, in conjunction with a Mr. Collins, a Member of the Royal College of Surgeons, to discover similar appearances to the one before described, with the exception that the congestion was even more general in every organ of the body,—those of generation particularly so,—and the bladder enormously distended with viscid urine: two greenish-looking ulcerated spots near the cardiac orifice of the stomach; parotid glands enlarged; considerable effusion into the ventricles of the brain, and around the spinal chord.

CASE III.—*Thorpe*, a large aged deer-hound, belonging to the same worthy Baronet, was bitten at the same time and place. His rabid symptoms were developed also on the 28th November, and he died on the 1st December. He was kept in a large brick kennel, enclosed with a wall twelve feet high, which he attempted to scale, repeatedly, the day preceding his death, but without avail, from paralysis of his hind extremities continuing increasing. The yell of this dog was described to me as most hideous during the night. They seldom bark at any time, I have been informed. The *post-mortem* appearances were in every respect the same as the case No. II. Several other dogs and cats that had been bitten at Theobald's Park were shot, for fear of the direful results; with the exception of one, Pilot, a cross-bred blood-hound, a very great favorite of Sir Henry's sister, the Countess of Maldon, which was bitten in the foot about the 1st of October by Snob. The wound bled much, and the dog naturally licked it. I see him once or twice a week, and no untoward circumstances have as yet occurred. He has been well physicked; but I do not place any dependence in *its* prophylactic agency. I first saw him on the 30th of October. The following remedy may not be out of place:—

“A HAIR OF THE DOG THAT BIT YOU.”

“In Scotland it is a popular belief that the ‘hair of the dog that bit you,’ when applied to the bite, has a virtue

either as a curative or preventive agent. I have seen a shepherd pull a few hairs off his dog, and apply them to a wound which the dog had just made in the leg of a boy. In this case the application was to cure the wound, and to prevent bad consequences—such as the occurrence of hydrophobia.”—From ‘*Notes and Queries*.’

Varied I know are the opinions of professional men as to the engenderment of this awful and uncontrollable malady. Some assert that it arises spontaneously, from high feeding, and the abominable practice of making dogs ferocious by training them to fight. But, since the exertions of the Royal Society for the Prevention of Cruelty to Animals have been made general, and since it has done away with the practice of dog-fighting, and with those cruelties which were practised in the dog-pits, it is notoriously true that rabies has been less frequently observed, and consequently that “The Society” has not only been of the greatest possible advantage to the brute creation, but has been of the utmost service to *man*, by saving the lives of many individuals who might have become victims to this awful disorder. Others assert that it is produced by inoculation, and by inoculation only. Who can possibly deny it? But how was it produced originally? If, then, as other diseases to which flesh is heir, why not in the present age? It has existed from the earliest time—allusions are to be found regarding it in the writings of Aristotle, and to Cœlius Aurelianus, are we indebted for an original description of its symptoms and progress. Its cure has hitherto evaded the suggestions of science, and the stupid—nay, blind—attempts of empirics.

The period between the imbibition of the virus and its development is longer than that of any other poisonous agent with which we are acquainted.\* Mr. W. C. Spooner says the usual period is about six weeks, but it ranges from seventeen days to six or seven months; the duration of it, from four to six days. A dog that has been bitten, if the animal be of sufficient value, should be kept carefully secured, and made to undergo a probationary quarantine of not less than six months.

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\* Percivall, in his ‘*Glanders and Farcy in the Horse*,’ relates a case in which the incubation of the virus of glanders amounted to fifteen weeks!

## INTESTINAL CALCULUS.

BY SAMUEL DAVIS, M.R.C.V.S., *Towcester.*

SIR,—I have ventured to send the following case of Intestinal Calculus, which, if you think it contains anything of interest, I have great pleasure in placing at your disposal:

The subject of this case is a heavy black cart-horse, apparently ten or twelve years old, the property of Mr. W. Gallard, of Norton Mill, in whose possession he has been for a period of four or five years, during which time he has never been observed to suffer from illness of any kind, being a remarkably strong animal, and free-worker.

Last night, he was turned out with the other horses, to all appearance perfectly well; this morning, Oct. 11th, he was found to be very ill; according to the carter's account, "quaking very much."

At 10 o'clock, A.M., I saw him, when the following symptoms were evinced: Head drooping; body bedewed with perspiration; pulse quick and weak; respiration accelerated; membranes pale; mouth and extremities cold; sense of vision impaired. A draught containing Sp. Nit. Eth. and Sol. Aloës, &c., was given, and other treatment adopted; but without any hope of its proving successful, as I expected that some internal rupture had taken place.

12 o'clock. Patient restless; shifting of the hind legs; crouches, as though he would lie down, but has not done so since he was first observed to be ill; continually looking back at his flanks; moving his head to each side alternately. Symptoms expressive of dull and continuous pain, but no signs of acute suffering are manifest. He gradually sank, and died at 4 P.M.

*Post-mortem examination.*—Three hours after, on opening the abdomen, a large quantity of fetid gas escaped. Fæcal extravasation had taken place, plainly indicating that a rupture of some part of the alimentary canal had occurred; which was found to be the case in the posterior part of the colon, near to the commencement of the rectum; the lesion having been caused by a calculus there, which had escaped into the abdominal cavity. Intense peritoneal inflammation existed; no doubt from the irritation set up by the presence of the fæcal matters escaped.

*The Calculus* is about the size of a large cricket-ball; weighs exactly one pound avoirdupois; and is in shape nearly spherical, being arranged in layers or strata. Having acci-



dentally dropped it, a portion of the outer layer separated; this is about a quarter of an inch in thickness, asperous externally. The next stratum seems much harder, and appears to have been submitted to the action of friction, before the accession of the external coat, its surface being quite polished.

It is evident that the calculus must have been a considerable time in forming, during which, as long as it remained where it was formed, the animal experienced little or no inconvenience from its presence; but, I have no doubt, after the horse was turned out on the evening of the 10th, the stone, from some cause or other, became removed from its bed, and forced onwards by the motion of the intestines; until, having reached the contracted part of the colon, it became impacted, and, the force being continued, rupture was the result.

It is a most singular fact, that during the time the mill has been in the occupation of Mr. Gallard, he has lost five horses from this one cause (calculus) alone. About twelve years ago he had a horse die, and on opening it a calculus was discovered, which, immediately after it was taken from the body, weighed the enormous, and, I should say, almost unprecedented, weight of fifteen pounds and a half! This stone is still in the possession of Mr. Gallard, who can vouch for the accuracy of the preceding statement.

I am, Sir,

Yours obediently.

TOWCESTER; March 8, 1853.

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### MAJOR'S "BRITISH REMEDY."

SIR,—May I beg the favour of your inserting, in your next publication, the following explanation of the inducements which led me to take an agency from Mr. Major? whereby (according to Mr. Dawe's letter in your last number) I am classed among the "*less scientific and ignorant men of the profession,*" and as, having "*departed from the straightforward path of science, ceased to be a professional man,*" &c. &c. You are well aware, Sir, we frequently have particular cases of spavin, ringbone, and other ossific depositions, brought under our notice, which to pretend to *cure* would be absurd, and at the same time be picking the pockets of our employers, as well as cruelly punishing the poor animal by subjecting him to firing, blistering, or any other treatment. At the time of "Major's British Remedy" being advertised, I had three cases of spavin and one of ringbone of the kind above mentioned;

and having given my opinion to the owners of the horses that nothing could be done to make them sound, I was asked my opinion of Mr. Major's remedy. My answer was, I believed it to be all nonsense, or something worse—they, however, wished to have it tried. Being in London soon after, I called at Mr. Major's, and saw one of his clerks, told him my business, and was introduced to Mr. Major, who stated he had an objection to veterinary surgeons having his "Remedy" without becoming agents, as they might use it, and take *the good resulting from it to themselves*. I then plainly told him I had some cases to test it upon, and that if it was only "humbug," the sooner it was exposed the better; but, on the other hand, if it turned out what he represented it to be, the sooner the public had the benefit of it the better. He replied, all he wanted for it was a "fair" trial. I then looked at the cases in his infirmary, saw him apply the "*Remedy*," accepted the agency, and advertised to that effect in one of our local papers, as he wished, thus performing my promise to him. I have applied it to the three cases of spavin and the ringbone, to both hocks of two horses, and one hock of the other. Two of the horses had previously been fired and blistered. The after-treatment (omitting the urine) was carried out, and all the cases have had a fair chance. This, Sir, is a plain statement of my connection with Mr. Major, and his "British Remedy;" and when a person comes forward, and publicly advertises the cures he has performed, I cannot see the harm of giving it a trial. If in so doing I have forfeited the good opinion of *any member of the profession*, I have the consolation of knowing that I still retain the confidence and esteem of my employers. I forbear sending the particulars of the cases in this letter, having already written at some length. They are, however, at your service, if you think them entitled to a place in a future publication of your Journal.

I am, Sir,

Yours respectfully,

THOMAS GREGORY, M.R.C.V.S.

TUNBRIDGE; March 11, 1853.

\*\*\* We hope Mr. Gregory will give us his cases in detail.—ED. VET.

## MAJOR'S "BRITISH REMEDY."

BROAD STREET, BATH; *March 14, 1853.*

SIR,—As soon as the advertisement appeared in *Bell's Life*, respecting "Major's British Remedy," Mr. E. Weller, of Circus Mews, Bath, wrote to Mr. Major respecting a horse with spavin, which he had recently purchased, Mr. Major assured him that if he purchased one of his £1 15s. bottles of "British Remedy," it would cure the spavin in the course of three or four weeks. The bottle was said to contain sufficient to cure from four to six spavins. Mr. Weller knowing of another horse, four years old, lame from ringbone on the off fore leg, belonging to Mr. Stone, of Kingsmead Street, Bath, he applied the remedy to both cases at the same time. The instructions after the application were fully adhered to for about eight weeks, at the expiration of that time, the whole of the bottle of "British Remedy" had been used without either of the animals being in the least degree benefited, but the horse with spavin is permanently blemished.

He is a very fine hunter, and having been seen in the early part of the treatment by a gentleman of Bath, who thought he should like to purchase the animal, if there was a probability of his being cured, he took a trip to town, had an interview with Mr. Major, who assured him that he never had an unsuccessful case; consequently, he purchased the animal, and allowed the treatment to be continued until the expiration of the time as stated above; and still having confidence, from the astounding "paragraphs" put forth by *Bell's Life*, he intended sending the animal to Mr. Major's infirmary, but first took the precaution of writing to a friend, Sir J—, an officer in the army, who had tried the "Remedy" on a horse with ringbone. Sir J—'s reply was, that the remedy had produced a deep slough, which would permanently blemish and injure the horse, so much so that he intended suing Mr. Major in the County Court for damages. He mentioned one other case of failure, belonging to another friend. After such reports as that, without hearing of one successful case among his acquaintances, he began to censure his old friend "Belle" for having so misled him.

I remain, Sir,

Your obedient Servant,

THOMAS DIKE BROAD, M.R.C.V.S.

## MAJOR'S "BRITISH REMEDY."

DEAR SIR,—In accordance with your expressed wish, I send you the outlines of the case referred to by me in your March number. The animal is a chesnut mare, aged, worked only during the season as a hunter.

About the middle of the season 1851-2, she began to go rather lame with the right hind-leg. On being consulted, I referred the lameness to the hock. Little was done in the way of palliation, and the mare took her regular turns of work until the finish of the season, leaving off very lame, with exostosis making its appearance over the usual seat of spavin. Iodine, and subsequently the "burning-iron," was applied; and when her term of rest was expired she was quite sound; but, before she was fairly again got into condition, her lameness reappeared, and the stronger her exercise the worse she became.

In this state, she passed into the hands of an old and influential member of the Cambridgeshire Hunt, who, seeing Mr. Major's advertisement, purchased a bottle of the "Remedy," and requested me to superintend the application, &c. I applied it myself on the 7th of December last; the inunctions of rum and goose-grease were regularly performed. No swelling took place; but, in about a fortnight, signs of suppuration were perceived around the edges of the part to which the application had been made, and in another week a thick slough of cuticle was easily removed in one piece, leaving a healthy granulating surface, with well-defined edges, the exostosis sticking boldly up in the middle. The alum lotion was occasionally applied during the healing, which progressed rapidly. The mare occupied a loose box during the whole of the treatment, and when first exercised gently was considerably better (doubtless from the rest); but she had only been walked out a few times when *she became as lame as ever*. Since then she has had nothing but quiet exercise, *and is now lamer than before the "Remedy" was applied*; and with a hock denuded of hair—indeed, the piece of cuticle removed carried with it nearly the whole of the marks made by the firing-iron.

If you can spare me space for a remark or two, I must ask what honorable man can, in any way, come in contact with a person who publishes an untruth? for such, according to your own and Mr. Daw's statements, is the case of Major Pitt's horse.\*

\* Major Pitt has since contradicted this "statement."



But if this can be overlooked, it strikes me that a ready way of fairly testing the "Remedy" would be to nominate two or three London veterinarians, who may be willing to take the trouble to examine, with Mr. Major's consent, the next half-dozen cases submitted to treatment at his Infirmary. Let these cases be fair specimens of disease; let the professional gentlemen see "the Remedy" applied, and occasionally visit them during their stay in the Infirmary; and, after their removal, let them put themselves in immediate communication with the owners, and the results be carefully ascertained. Thus the object might be accomplished, with the sacrifice only of some little time and the addition of a little inconvenience. Mr. Major professes to court the strictest investigation; therefore would doubtless acquiesce with such a proposal. On him lies the onus of proof, and such proof as he has already tendered is, to say the least of it, extremely equivocal.

In conclusion, Mr. Editor, let me say that I have read with mingled feelings of scorn and contempt the unfair allusions to the character of the Veterinarian lately published in *Bell's Life*. They do but prove the justness of the remarks made by Mr. Daws in your last number; and, doubtless, Sir, you will be just able to survive the imputations.

Meanwhile, allow me to subscribe myself

Your obliged and obedient servant,

WILLIAM CHARLES SIBBALD.

BIGGLESWADE; *March 15, 1853.*

## ON SHOEING CAVALRY HORSES; OR, CONCAVE *versus* FLAT SHOES.

BY CHAS. PERCIVALL, V.S. ROYAL ARTILLERY.

SIR,—Understanding, some time since, that a *new shoe* was about to be introduced into the cavalry, in order to establish an *uniformity* of system, "in which the different cavalry regiments differed, as you have justly remarked, one from another, in almost as many respects as there are regiments,"—certainly objectionable, if not discreditable,—uniformity being most desirable. Having always taken an interest in, and devoted much attention to, this important branch of veterinary science, I have been anxiously waiting to get a glimpse of the *new shoe*, in the expectation and hope of gaining some information on this much-disputed point; hearing that some nobs of the profession had been consulted,

who formed part of the committee which has so recently been sitting on this important subject.

That a *uniform* system was called for, is self-evident; but I cannot help expressing my disappointment and surprise on seeing the *new pattern shoe*, to find pretty much the same shoe re-introduced which was in use at the time I first entered the service, seven and thirty years ago; with the exception of its being stamped, in place of being fullered. And what augmented my surprise was, on perusing the Horse Guards circular, finding it stated, that the Board was *assisted by two old and experienced professional gentlemen!* Now, Mr. Editor, I don't know who the professionals alluded to are, but their experience has not only not afforded us any improvement in our system, as far as the *shoe* is concerned, beyond *uniformity*; but, I think, has precluded the service from being likely to derive any benefit or advantage whatever from so faulty a piece of workmanship.

As regards the preparation of the foot to receive the shoe, I think, with you, that the order to pare the soles as little as possible, leaving them strong, merely removing what Nature is endeavouring to effect by exfoliation, is an improvement; and if, in addition to this, the *concave shoe* had been adopted, we should have had, in my opinion, a rational and scientific system, calculated to preserve the foot in a sound and healthy state; embracing all the advantages a piece of iron nailed to the foot can possibly possess. There is a strong prejudice, I know, in the mind of many individuals, against the concave shoe; and it is very common to hear such men, in speaking of the same, boast of their experience in this or that cavalry corps; but does this experience teach them the anatomy and physiology of the foot of the horse? and, if ignorant of the structure and functions of this complicated and highly important part, are they competent to give an opinion; or what can they possibly know about shoeing, unless it be a *well* or *ill-made* shoe? Little more than Mr. Hobeys, or any other boot-maker, knows of the anatomy of the human foot. All I ask is, let one of the anti-concave advocates ride a horse in *concave* shoes, and another in *flat* shoes, from Hyde Park Corner to the Bank, and back; or (if he pleases, as a more fashionable locality), up and down Rotten Row, on a frosty day, which is the only way or means he has of judging of the merits or demerits of the two shoes; and if, after performing these feats, he tells me that the horse with the flat shoes carried him better than the horse with concave ones;—that he was more secure on his legs;—that there was less chance of his slipping up and breaking his own knees or his rider's

leg ;—I should be disposed to listen to his objections to the concave shoeing. But, from experience, I know the reverse of this to be the case ; and, as long as I possess one of the equine race, whether horse, mule, or ass, he shall never be shod with any other shoe of which I have any knowledge at present. A shoe with a concave upper surface shall never come in contact with my horse's foot ; not only for the safety of my own neck, but from a conviction that the reverse of this or a flat surface, preserves the foot in a more sound and healthy state. I am surprised that an experiment was not ordered to be made with the two shoes in the Household Brigade,\* before deciding such an important question, there being in the vicinity of London a greater variation in the roads than elsewhere, thus presenting an admirable opportunity of testing the merits of the same, as far as the safety of the rider is concerned,—a point I consider of the utmost importance under any circumstances, but more especially so when there is from nineteen to twenty stone upon the animal's back. I have heard it said, that the great object was to fix upon a shoe of the *plainest* description, and the easiest one to make. Now, in this respect, they have succeeded admirably, for a plainer one certainly could not very well have been fabricated ; but there is no more difficulty, that I am aware of, in making the shoe concave next the ground (without a tool which my smiths never use), than there is in making it concave next the foot, which every smith that I have put the question to, has answered in the affirmative. And, I think again, it must be clear to an unprejudiced mind, that the horse is much more secure on his legs in a shoe which gives him the natural tread, which is *not* flat, but *concave*, and which enables him to embrace or grasp the ground, and, consequently, not so liable to slip in a shoe of this description, as with one having a flat ground-surface ; to say nothing of imprisonment and impediment to the functions of the foot, from the shoe which is concave next the same ; besides the liability to have the shoes pulled off in heavy ground. The suction being greater, more nails are required than with the close-fitting shoe, which, in the majority of horses, *five* nails will keep securely on the foot.

*The New Pattern Fore-Shoe*, shown to me, which weighs  $13\frac{1}{2}$  ounces will, in my opinion, be found too light, in as much as it will not last the horse a month, or eight and twenty days. It is likewise too narrow in the web, not

\* Two regiments (out of the three) composing the Household Cavalry Brigade already used, and had for years used, the *concave* shoe.—ED. VET.

giving sufficient protection to the foot against loose or projecting stones. The heels of it are badly formed, being cut off straight, instead of being sloped; in which case, there would have been no danger of the hind shoe catching in the heels of the fore, and throwing the horse down. The edge or rim of the shoe is nearly straight or level from the upper to the lower surface; if it had been well bevelled from the upper to the lower part, the horse would have been less liable to cut or interfere in action. The ground-surface of the shoe, after what I have said, it is unnecessary to comment upon.

*The Hind-Shoe*, like the fore, is not sufficiently bevelled at the rim, for the reasons already pointed out. The clip *at the toe* of this shoe must, in many instances, be dispensed with; for should the horse forge, or as smiths phrase it, "carry the hammer and pincers," a most disagreeable and unpleasant noise, (which some horses constantly do) it cannot be prevented, unless the toe of the hind-shoe be *squared*, and set back from half to three quarters of an inch, leaving the horn projecting beyond it at the toe; and this has a tendency to prevent overreaches also. The inner edge of the ground-surface of this shoe is left sharp at the toe. Had it been *rounded*, it would have been less likely to catch in the heels of the fore-shoe, as *before adverted to*, and would tend very much to obviate those nasty accidents *overreaches*, which are so very likely to occur in a severe field day, especially when the ground is heavy.

Hoping that some of my old friends who have given the subject their attention, will come forward and favour us with their opinions on this *new shoe*—if such it can be called.

Yours, &c.

PORTOBELLO BARRACKS, DUBLIN;  
March 14, 1853.

## VETERINARY EXAMINATION.

SIR,—I do not ascertain, from a careful perusal of the bye-laws of the Royal College of Veterinary Surgeons, that any date is fixed for the examination of candidates for the diploma.

May I inquire whether there *is* any regulation concerning the time for the first examination, or the interval which must elapse between one examination and another?

If there is not, allow me to suggest, through the medium of 'THE VETERINARIAN,' that the Council would confer a



boon on the students by appointing an earlier day than usual for the first examination; or, the object sought might be attained by shortening the time intervening between the days selected for the purpose.

Many young men are not so wealthy as to be able to remain in London two or three weeks, even, after the conclusion of the session, without pecuniary assistance, which is, to say the least, inconvenient.

Others are detained here in anxious, painful suspense. And some may be prevented from fulfilling engagements entered into under the supposition that they would be examined at the end of the term; these, also, are thus subjected to pecuniary loss.

I imagine it can matter little to the Council, whether this business be finished early or late; but I think you will agree with me, that it is, to many a student, a very serious affair.

Trusting this communication may have the desired effect,

I am, Sir,

Your most obedient Servant,

A STUDENT

ROYAL VETERINARY COLLEGE,  
CAMDEN TOWN; March 17, 1853.

\*.\* We believe it to be the desire, both of examiners and teachers, that the Spring examination should take place *as soon as possible* after the conclusion of the Lectures at the Royal Veterinary College.—Ed. 'VET.'

## EPIDEMIOLOGICAL SOCIETY.

*To the Editor of 'The Veterinarian.'*

DEAR SIR,—Will you be good enough to communicate to your numerous readers, that, should they not have received a copy of the circular issued by the Epizootic Committee of the Epidemiological Society, containing a series of queries on Pleuro-Pneumonia, one will immediately be forwarded to any gentleman applying to—

Very truly yours,

E. N. GABRIEL,

Hon. Secretary to the Committee.

ROLLS' BUILDINGS; March 17, 1853.

## VETERINARY JURISPRUDENCE.

## SHOCKING CASE OF BRUTALITY.

MARYLEBONE.—*Isaac Hunt*, 7, Mansfield place, Kentish Town, was charged at the instance of Mr. Thomas, Secretary to the Royal Society for the Prevention of Cruelty to Animals, with torturing a horse by wrenching off part of its tongue.

Mr. Thomas stated briefly, but explicitly, the nature of the case, and in support thereof he called his witnesses.

Ezekiel Elliott, an officer in the employ of the Society, deposed, that on the 5th of February he saw defendant with a horse and cart in Kentish Town. The horse was evidently in a state of starvation, and scarcely able to stand, and, after defendant making an endeavour to get it along, but without success, he thrust his hand into the mouth of the poor animal, and wrenched off at least five inches of its tongue. The portion of the tongue thus brutally torn away fell upon the ground, and defendant picked it up and put it into his pocket.

Mr. Thomas: Was there any instrument in his hand with which he could have torn off the tongue?

Witness: There was not, Sir.

Another witness was called, and he corroborated, in all the material particulars, the evidence of the first witness.

Defendant's answer to the charge was, that the horse would not come along, and that he merely laid hold of its mouth to touch the bit; he also laid hold of the tongue, and a part thereof dropped off. It was diseased before, and when part of the tongue fell into his (defendant's) hand, he did not, as alleged, put it into his pocket. He had not exercised any cruelty whatever.

Defendant called some witnesses, and, after they had been examined,

Mr. Broughton, considering the case of cruelty to have been clearly proved, fined defendant £3 and costs, or six weeks' imprisonment.

[There can be no doubt but that previous lesion of this horse's tongue existed, otherwise, it could not have been "wrenched off" in the manner described.—Ed. VET.]

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## Home Department.

### HIGHLAND AND AGRICULTURAL SOCIETY.

A monthly meeting of the Society was held in the Museum Hall, on Wednesday, the 23d ult. Mr. CALLANDER, of Preston Hall, in the chair.

#### THE SUBJECT WAS—INFLUENZA IN HORSES.

Mr. BARLOW, V.S., said—The subject of influenza in horses is submitted to your consideration this month for the following reasons:—1. It is an affection of common occurrence, and occasionally prevails far more extensively and destructively than most other diseases. 2. Many of you have suffered from its inroads, aggravated, it is to be feared, as these inroads have sometimes been, by improper treatment under your own or less competent hands. 3. It seems frequently to manifest a severer form in farm and other draught horses than among those of lighter breeds. 4. It has apparently obtained somewhat of a settlement among us; so that a spring or autumn scarcely passes without some cases at least being observed. 5. A notice of the predisposing causes and treatment of this disease will involve some considerations regarding the domestic management of horses,—a subject of primary importance to you all. Influenza may be defined as an epizootic catarrhal disease, often accompanied by a low type of inflammation involving more or less extensively the organs of circulation and respiration; sometimes those of digestion and locomotion also; attended by fever of a typhoid nature, and great depression of the nervous system. The term influenza (the Italian word for influence) was originally applied to its present meaning in consequence of a once-prevailing belief that diseases as well as other terrestrial conditions and events, were caused by stellar and planetary influence. The disease has also been, however, known by the various designations of horse-fever, epizootic or epidemic catarrh, catarrhal fever, and distemper. These latter names, indeed, were almost exclusively employed till within a comparatively recent period. The term influenza seems to have been currently used in veterinary nomenclature from the time that veterinary science was first systematically taught. We were early compelled to borrow much from the pre-existing science of human medicine, and, observing a disease among horses very similar to influenza in man, we appropriated this name. I fear we have now extended the application too widely by including various diseases under one designation. A recent veterinary author, more voluminous and theoretical than practical, makes the singular statement “that influenza is the name now-a-days given to any disease prevailing epidemically (epizootically), attacking great numbers of horses about the same time, in various localities and situations, without any regard, so long as the disease in all or most of them be the same, to what happens to be its nature, or even to what organs or parts of the body are attacked by it.” (*THE VETERINARIAN*, Aug. 1845, p. 477.) According to this, any disease whatever may be called influenza, provided it possess the property of wide extension. In calling different ailments by the same name, however, our descriptions of diseases become involved in obscurity: we never agree as to their treatment, and investigations into their characters become more difficult than nature intended. To avoid these evils as far as possible, I may here remark that there is one very common form of disease universally called an influenza, to which, for distinction's sake, I will venture to apply the term anasarca (or dropsical) influenza, in order to distinguish it from that more serious or catarrhal and pulmonary form or influenza proper, which will engage our main attention to-day. Anasarca influenza may accompany the last-mentioned form of disease; but it frequently occurs independently, and very

extensively too, without any prominent catarrhal symptoms. The affected animal is very weak, as shown by a staggering gait, dulness, heavy drooping of the head, and feeble pulse. The eyelids swell greatly, are nearly closed, and tears flow copiously from between them. The legs and all depending parts of the body, especially those most loosely covered with skin, are also swollen, but not from inflammatory exudation, as is shown by pressure causing indentations or "pittings" with little or no pain. The bowels are torpid, but strangely sensitive to the action of medicine; the urine is scanty; and the appetite completely gone. The exciting cause, or perhaps atmospheric poison producing this disease, appears to act directly on the blood, and promotes such disturbance and change therein as leads to effusion of its more fluid parts, lowering at the same time the activity of the circulatory, nervous, and respiratory systems. The medical treatment must be stimulating; with this and good nursing almost every case recovers, the deaths not amounting to two per cent. Many fatal cases, however, have occurred where the copious bleeding and purging system has been adopted under a mistaken notion as to the existence of inflammation. It is a singular fact that this epizootic, so imperfectly noticed by modern veterinary writers, should be fully and graphically described by the oldest authors on diseases of horses. One Absyrtus, who appears to have lived about A.D. 330, notes it accurately. His account is found in a book on veterinary matters, collated from various ancient writers (mostly Greek) by order of the Byzantine Emperor Constantine VII. (Porphyrogenitus), who died A.D. 947. A Latin edition of this rare and valuable work, published in Paris in 1530, and a Greek edition of the same published a few years after, both of them by order of Francis I of France, are now in possession of Professor Dick. The Professor has also an Italian veterinary work published in Venice in 1618, by Carlo Ruini, a Bolognese senator, in which symptoms corresponding to the above are well described.

**CATARRHAL INFLUENZA, OR INFLUENZA PROPER.**—If I were asked to name one condition peculiar to this disease, and sufficient to distinguish it from diseases in other respects bearing some resemblance to it, I would say that condition is, unusual and peculiar weakness. I believe that those who know influenza best—who are most careful not to confound it with other epizootics—will agree with me in saying that, let there be ten or twenty other symptoms, weakness is one of the first, most constant, and longest enduring of them all. This weakness, too, appears as the associated effect of a state of system to which we apply the term typhoid or sinking fever; and influenza becomes difficult to manage in proportion as the typhoid weakness predominates over co-existing symptoms. Although by no means confined to the same seasons of the year at each succeeding visitation, influenza is most common in the later months of spring and autumn. It seems most prevalent amongst young horses, but affects animals of all ages. Mr. Percivall (see 'THE VETERINARIAN,' 1845) had forty cases of five-year-old horses, to twenty-four cases of other ages. I have not been able to confirm this, further than by observing during an influenza that strangles is common among young horses, and seems to exempt them from influenza for the time, and old or seasoned horses are always less liable to disease than others. On undertaking to prepare this paper, I wrote to some veterinarians in extensive practice in England for the results of their experience in influenza. Several of these gentlemen practising in large towns—Mr. Lawson of Manchester, Mr. Proctor of Liverpool, Mr. Graham of Birmingham—inform me that they find the disease most severe, and often most prevalent, among heavy draught horses. Our own experience confirms this. I do not know how to explain the circumstance, but may suggest that heavy horses are often less carefully stabled than others, and are exposed to special predisposing causes of disease. A well-bred horse will resist and sustain disease far better than one of coarser breed. Perhaps no animal can "bear up" under disease so well as a thorough-bred horse; this power seems to depend on his well-developed nervous temperament and great physical energy.

**SYMPTOMS.**—Diseases of a febrile character generally affect horses suddenly, and run a favorable or unfavorable course more rapidly than in man. Influenza is no exception to this rule. Horses are sometimes taken ill whilst out at work, more frequently they are found unwell soon after coming into the stable; but



night seems the most common time of seizure. The earliest indications of ailment are dulness, weakness, and loss of appetite. In connection with these, or soon after they are noticed, there is frequently a shivering fit; during its continuance the skin may be of unequal temperature in different parts of the body, but it mostly becomes cold and dry. The nose looks redder than natural within; the mouth is dry, hot, and clammy, although the lips are cold. The eye-lids (probably somewhat swelled) are half closed over the dull, cloudy eyes; the head hangs down, and in cart horses the lower lip is sometimes retracted, or hangs pendulous, thus exposing the teeth, and giving the patient a peculiar sickly appearance. If made to walk, the animal carries his head down; totters or staggers on his fore legs, and reels behind, as though some severe injury had been inflicted on the loins. The pulse is quicker than natural, often attaining 55 to 60 beats per minute; but it is weak and unresisting to the finger. A short, sore cough is soon present, sometimes this is the symptom first noticed; the breathing is somewhat accelerated, and, in severe attacks, is sighing and irregular. Dulness and weakness are present in many other diseases; but here they appear so early, and with such uniformity, as to denote clearly that the whole system is prostrated in the outset as well as by the progress of disease. In a few hours, varying from six to twelve, the pulse will probably reach 70 or 80 beats in a minute; and, although the artery may feel of good volume, yet its pulsations can be arrested (compressed) by the slightest pressure. This is obvious proof of real weakness,—weakness involving the heart, and felt throughout the system. The cough becomes increasingly harsh and painful, for the inspired and expired air has to pass over a sore, almost raw, membrane. If the animal will yet eat or drink, fits of coughing are excited by the act of swallowing, and we sometimes find that the patient refuses food and liquids, apparently in consequence of the soreness of his throat. The hair feels harsh and dry, and stands half erect on the back and sides of the neck. One ear or leg will feel unusually cold, the other unnaturally hot, and the four legs will often present different degrees of temperature. In some cases the joints swell; moving gives evident pain; the patient turns round stiffly, and with difficulty. Where stiffness is most obvious, there is often most weeping of the eyes, swelling of the throat outside and within, with cough in its severest form. Many among you, gentlemen, have had influenza; your backs felt a chill, colder than of ice-water running down them; your throats raw and swelled, felt torn by a hoarse, raking cough; your heads ached intensely inside and out; your limbs were racked by an aching soreness in skin, flesh, and bone; your tempers, alas! were worse than their bodies. Pity the poor horse, then; for my conviction is, that (excepting infirmity of temper) he feels much as we feel, and endures all far more patiently than we. When twelve or eighteen hours of illness have passed, the attendant remarks that the horse has voided little urine; that the bowel evacuations are limited in quantity, and covered with a thick layer of slimy mucus. Matters may continue much in this state for a day or two longer, after which, sometimes in consequence of treatment, and often without any treatment at all, except that included in good nursing, the symptoms will gradually subside, and, in great part, disappear in a week or ten days. The third or fourth day will generally show whether we may expect an early or favorable recovery, or one rendered tedious and perhaps doubtful, by complication and extension of disease. The favorable signs are unmistakeably seen, in an early discharge of yellowish matter from the nose, a slower and rounder pulse, slight relaxation of the bowels, more copious urination, respirations fewer, deeper and more free; softer skin, mild warmth in the legs and ears, cooler and more watery mouth, elevation of the head, and clearness in the eyes. These favorable signs precede a full return of appetite; for nature does not induce the patient to feed till the system is ready for the process of digestion. In cases of a severe character, however, especially where influenza has been brought on by very active predisposing causes, we find that about the third day, the pulse becomes quicker, smaller, and, in not a few instances, irregular. The flanks and belly are drawn in, causing a prominent ridge to appear along a line, formed by the lower ends of the false ribs; breathing is hasty, short, and laboured. The irregular, or may be, intermittent pulse, and drawn up flanks, are unfavorable signs; they indicate that the membrane lining

the chest (pleura), with that covering the heart and lungs, are involved in disease, or its consequences. The animal never lies down willingly, but stands almost without moving, stupid, and dejected. The ears, legs, and surface of the body generally, are cold; all external is dull and gloomy, as well as cold, because internal disturbance, in destroying the balance between circulation and respiration, is arresting the production and equable diffusion of animal heat. We have symptoms of pleurisy and pneumonia; but, our patient suffers from something more, and we have something more to treat. That something is the attendant typhoid fever. The type of inflammation itself is altered,—may I not say more vitiated, by this. Exudations into the lungs, and into the chest taking place here, are different from those occurring in ordinary or non-epizootic pneumonia and pleurisy, inasmuch as they are not only the abortive products of a typhoid inflammation, but are formed rapidly and directly from deteriorated blood, in consequence of that fluid flowing tardily in vessels with walls, now too weak to retain their natural contents. It was once thought that inflammations were always alike, and exudations always the same; we know differently now, and we treat them differently, too. The prominent or outward signs indicating fluid in the chest (so far, at least, as I can detail them here,) are these: expanded flapping or working with the nostrils to get hold, as it were, of as much air as possible; lifting of the loins, in consequence of the abdominal muscles being called in to aid respiration; turning out of the elbows to widen the chest and to facilitate expansion of the ribs; a smoother appearance of the coat in consequence, perhaps, of the skin acting to compensate, in some degree, for want of action in the lungs; swelling of the legs, brisket, and lower parts of the trunk, from fluid being effused through the walls of veins to relieve the obstruction they cannot overcome. The small quick pulse becomes quicker, reaching 80 or even 90 beats in a minute, and, when water is present in the heart-bag (pericardium), the pulse is intermittent. There are other valuable signs of water in the chest, which the veterinary surgeon learns by applying the ear outwardly over the seat of disease; an explanation of these would require more time than we can now spare for their consideration. As a general rule, when the pulse becomes small and exceeds 80 beats a minute, and respiration reaches 25 or so, the case is to be viewed with apprehension. A pulse of 90, and respiration increased in proportion, turns probabilities of recovery against the patient; and there are very few recoveries, indeed, after a pulse has remained for twenty-four or thirty-six hours from 95 to 100 beats a minute. Death occurs, in consequence of the depressing influence of existing fever, with circulation and respiration impeded by collection of fluid within the chest. The animal, in fact, is prostrated by the typhoid fever and attendant inflammation, as well as drowned from within by the products which these conditions induce. The fatality of influenza in certain localities is not great. Mr. Lawson, of Manchester, treated some three hundred cases in 1840, and had three deaths. Mr. Taylor, of Nottingham, and Mr. Graham, of Birmingham, report fatality much in the same proportion. In farm steadings, or other situations exposed to prevailing cold winter and spring winds, especially such as come from the sea, the mortality is much higher, and has reached 25, or, in aggravated cases even 40 per cent. The period of death is far from uniform, yet we often notice, that it occurs about the time that convalescence is established in the majority of cases ending favorably, viz., from the seventh to the tenth day of illness. A case showing no amendment by the tenth or eleventh day, is almost always hopeless. On dissecting the body after death, we find a peculiar softened state of the muscles; they also look dirty, and yellow in colour. The blood contained in large vessels, is dark in hue, and deficient in coagulating power. The mucous membrane of the larynx, pharynx, and windpipe, bronchial tubes and lungs, is of a dark purple tint, and covered with frothy mucus, deeply tinged with blood. The lungs are dark coloured, far heavier than natural, and contain much dark blood, as well as a dusky yellow fluid of offensive smell (softened fibrin), which seems to have destroyed their consistency. The pleural cavity (chest) contains fluid to the extent sometimes of twelve gallons, and even upwards. Covering the lungs outwardly, occupying the floor of the chest, and lining the ribs, is a yellow jelly-like substance (fibrin). It has not, however, the

consistence and qualities of healthy fibrin, nor yet of that fibrin found in ordinary pleurisy; for, instead of being strongly fibrillated, tenacious, and almost devoid of smell, it is soft, contains unusual numbers of corpuscles or cells resembling pus, much of it is semi-fluid, and evolves a sickly odour. The pericardium nearly always contains fluid, like that found in the chest. The liver is soft and congested, in consequence of its large venous outlets being obstructed. The intestines often contain patches of a purple tint, and Mr. Taylor, of Nottingham, specially notices the fact, that they are frequently ulcerated, thus presenting a striking resemblance to what is seen in typhus fever in man. The great feature, in short, of all is, that most organs are softened, many of them broken down in structure, and offensive in smell, and more or less filled with dark coagulable blood.

**HISTORY.**—Some of our friends whose recollections extend into the last century, will now and then tell us, that influenza—unknown in their younger days—is a disease of these later times. It is certain that the same name has not always been applied to the same symptoms; yet, I believe, that the disease in horses now called influenza, has an antiquity equally venerable as the influenza in man. There does not seem to exist any authentic records of epidemic influenza, prior to the year 1510. (*Annals of Influenza*, Sydenham Society's edit.) In that year it prevailed extensively. Domestic animals suffered from disease also; but, of what nature, we have no exact information. The epidemic influenza that visited England and Ireland in the year 1668, was preceded by a disease among horses, in which discharge or defluxion from the nose was a prominent symptom. (*Ibid.*, pp. 22, 25.) Dr. Arbuthnot, alluding to the epidemic influenza of 1732-3, says: "In autumn, and long afterwards, a madness (appeared) among the dogs; the horses were seized with catarrh before mankind." (*Ibid.*, p. 38.) Gibson, a veterinarian of good repute, describes a disease occurring amongst horses in 1732, which was evidently influenza; and Gervase Markham, whose book on veterinary topics in general had reached its twenty-first edition in 1734, describes symptoms closely corresponding with those before enumerated. In 1738, coincident with influenza in man, coughs and anginas were very common among horses, and in many cases caused death by suffocation. (*Ibid.*, p. 57.) In 1743, "there was much mortality amongst deer, and mange appeared much amongst horses, many of which died emaciated, and were suffocated with glanders and cough." (*Ibid.*, p. 60.) Epidemic influenza existed at the same time. Osmer, a veterinary writer, describes a horse distemper occurring in 1750, which was, evidently, influenza. Before epidemic influenza appeared in the Carse of Gowrie, in 1758, the horses were observed to be universally affected with coughs and colds. Speaking of epidemic influenza, in 1775, Dr. Fothergill says: "The horses had severe coughs, were hot, forbore eating, and were long in recovering." (*Ibid.*, p. 89.) During epidemic influenza, in 1775, Dr. Haggarth, of Chester, states: "That almost all the horses in North Wales were seized with coughs." (*Ibid.*, p. 111.) Noticing the same epidemic, Dr. Glass, of Exeter, says: "Many horses were affected with colds and coughs, which constitution, it should seem, was not merely accidental; since it has been observed, that horses were infected before man in three general epidemical constitutions that have appeared in our time." (*Ibid.*, p. 102.) Referring to the same visitation, Dr. Pulteney, of Blandford, Dorset, says: "I have heard much of horses and dogs having been affected before we heard of it among the human race." (*Ibid.*, p. 112.) A severe catarrhal affection among horses was observed and described by Mr. White, V.S., of Exeter, and Mr. Wilkinson, V.S., Newcastle-on-Tyne, in 1798. The symptoms exactly corresponded with those now constituting what is called influenza. In 1803, epidemic influenza appeared in France, Holland, Great Britain, and Ireland; and we have abundant evidence of a similar disease occurring among horses before and at the same time. (*Ann. Inf.*, p. 213.) It re-appeared again among horses very extensively and severely in 1815. (*Wilkinson on Catarrhal Affection in Horses*; Newcastle, 1818.) John Field, of London, records the remarkable prevalence of the disease in 1819 and 1823. Since that time, and up to the present, we find many records of its occurrence in our monthly periodical, *THE VETERINARIAN*. It is singular that, although of late years, scarcely twelve consecutive months



have passed without many cases being observed, yet, at intervals of four years, influenza seems to give us a specially severe visitation. Thus it is noticed by Wilkinson in 1815; by John Field in 1819 and 1823; by Percivall in 1828, 1832, 1836, 1840, and 1844 (*THE VETERINARIAN*, 1845.) Most of us remember it well in 1848, and still better in 1852. Thus excepting an interval of five years in one case (between 1823 and 1828), we can trace its periods of aggravation in four-year cycles from 1815 to the present time.

**CAUSES.**—Probably there never was an epidemic, epizootic, or pestilence, that affected all the individuals in a community. The plague, cholera, and influenza, leave greater or fewer numbers unharmed. Men and animals that become affected, are in a state of body different from those that escape. This is called predisposition; the conditions inducing it are called predisposing causes. These may not produce any apparent effect so long as they exist alone; for some special excitant, called the exciting cause, may be required for their full development. A piece of tinder or gunpowder requires the predispositions of dryness and peculiar composition, in order to take fire from the action of the kindling or exciting spark. Take another illustration; there is a certain (epidemic) impost called the Income-tax; those affected by it, labour under the predisposition—say of £150 a year income, whilst a man with £149 is not predisposed. Law, impersonated in the tax-gatherer, compels the predisposed to pay in proportion to their liability, and allows the non-predisposed to escape. Almost all predisposing causes act by lowering the general health, and depressing what may be called the vital conservatism of the system. Among the most prominent of these are: over-work, with poor feeding; undue exposure to extremes of cold and heat; bad ventilation, with its too frequent concomitants, darkness, dampness, and filth. Over-work weakens the system directly by exhausting energies beyond their resources. No amount of food can compensate for over-reducing labour. Hence, we find in many large towns, that the useful, but often hardly-wrought, and imperfectly-stabled coach, cab, and omnibus horses, fail largely under influenza. When a horse is at ordinary work, the skin becomes raised in temperature; perspiration is excited; there is an increasingly-rapid passage of blood through the lungs and system, in order to maintain animal and organic activity. If the horse be placed in a cold or damp stable on coming home, or suddenly exposed to the action of cold in any other way, the balance of circulation becomes greatly disturbed. The action of cold produces a constricted or contracted state of the skin and its vessels; blood is repelled from outward surfaces, and must collect round and within internal organs, causing their congestion, a condition but one stage short of inflammatory action. Repeat this process once or twice a day,—that, too, in winter or spring weather,—then judge from your own feelings what will be the result. Many of us can date an attack of illness (possibly of influenza) from causes of this kind. To-day, for instance, we are heated with exercise; we get cool by standing in a draught; then comes a shudder without, and a chill within; to-morrow we have a sore throat, and oppressed chest. There seems something specially irritating in the cold and draught of a spring east, or north-east wind. Horses, for instance, are changing, or preparing to change, their coats; the skin has commenced an activity, which is arrested or destroyed by the prolonged action of cold. When horses are kept in open exposed courts, which, in many instances, are damp also, the action of cold, injuriously alternating with the heat occasioned by labour, is all the more severely felt. Mr. Proctor, of Liverpool, informs me, that influenza is extremely common in draught horses engaged in drawing timber from the docks, where they are exposed to draughts of cold air, after being kept in a warm stable, or heated by exercise. Mr. Goodwin, Veterinary Surgeon to the Queen, remarked, during the influenza of 1844-5, that most of his affected horses stood on the sides of stables exposed to the north-east. (*THE VETERINARIAN*, 1845, p. 187.) A cold wind blowing directly into a comparatively well-ventilated stable, will often induce coughs and colds in abundance. If the stable be close, warm, and damp, the colds will often run on to bronchitis and pneumonia, or bad cases of influenza will occur if that epizootic be prevailing. The animal body is ever taking in material for its support and purification in the shape of air, as well as food; and is as continually separating or voiding



what is injurious by the lungs, bowels, and kidneys. The horse is naturally a cleanly creature. His immense lungs require so much good air, that he shuns offensiveness instinctively. When he has the chance, he avoids bad smells almost more resolutely than any other animal. No creature could do what he does for us, and he does this in virtue of possessing such perfection of physical organisation; we admire it more and more whenever we examine it anew. The heart of a man weighs about eight ounces, and propels two ounces of blood into the system at each pulsation, say 150 ounces a minute, and as much more is sent into the lungs during the same period. To fit this for the support of life, his lungs, during ordinary breathing, contain about 180 cubic inches of air. To maintain this at the proper purifying standard, he breathes out (expires) those hurtful products always collecting in the blood, and inspires or draws in about twenty cubic inches of fresh air, some sixteen times every minute. The horse's heart is twelve times heavier than a man's; at a very low computation, from repeated measurements I have made, it propels five times as much blood, viz., upwards of 46 pounds are sent into the system, and as much more into the lungs every minute. This amount, great as it seems, is increased during exercise, and so ample, so perfect is the apparatus for respiration, that the lungs are continually supplying adequate means for the purification of this enormous vital tide. Now, gentlemen, do we practically bear all this in mind? It is, I fear, too rarely remembered by those who know it to be true; whilst those in immediate charge of horses are often most ignorant of the properties of air and the requirements of blood. In well-constructed gaols in this country, a space of from 800 to 1,000 cubic feet, or air-space, is provided for each prisoner. In some gaols under British control in India, a space of no more than 300 cubic feet is the average provision, and tells on the unfortunate wretches who are confined in it, by the frightful annual mortality of 1 in 10, sometimes even 1 in 4. (*Brit. and For. Med.-Chir. Rev.*, Jan. 1853.) Every one has in his mind's eye the size of an ordinary parlour, with its two windows for light, its fire and door for warmth and ventilation. Every one knows, too, that four or five horses, each requiring at least eight times as much air as a man, are often stabled in less space than this, with, perhaps, no window that admits light, no provision to remove the dampness and gases originating in the natural evacuations; no special provision for entrance of air, except such as may find its way under the door; no way for impure and heated air to escape, except through one fortunately-broken pane, out of some three or four dirty pieces of glass, forming a caricature window over the door. But why are so many stables almost dark even in the day-time. A kind Providence, as if to show man his duty to the lower animals, brings forth the choicest natural productions of organic life where there is the best light and the purest air. With darkness in stables there is almost always dampness; where darkness, dampness, and a close atmosphere combine, each and all reeking with decomposing animal evacuations, there is the worst possible provision for sustaining life and health in a state of integrity. Small, indeed, is the spark here required to kindle a great amount of disease. When influenza prevails—when epizootic disease of any kind prevails—each is most severely felt in dark damp stables, the unnatural heat of which is caused by many horses crowded into a small compass. Every veterinary surgeon knows that he has more disease in proportion in a stable containing 20 horses than among 20 horses divided among five, six, or seven different stables. "The Romans were probably aware of the hygienic advantages of isolating animals; for, in the ruins of Pompeii, stables are observed appropriated to one horse." (*Ann. Inf.*, p. 375.) I have lately had the curiosity to measure the space of air allowed to each horse in stables containing from 6 to 20 stalls, and find that in many cases the average quantity is below 1000 cubic feet. Sometimes, indeed, the space falls below what is considered necessary for the human being. Singular to state, too, we often find as much provision for air and light in a stable of one stall as in a stable with ten. Here is the formula for a six, eight, or ten stall stable: one door, one dirty window over it, one broken pane, one grating covered with filth to prevent the wash from flowing into the one stinking drain, with darkness and dampness presiding over all. But these predisposing causes, active as they too often are, can scarcely operate so precisely alike, and at the same

time, as always to induce the same epizootic disease. What, in fact, is the exciting cause of influenza? We are ready with the everlasting answer—"Oh, it is atmospheric influence,"—an answer convenient enough to conceal our ignorance, for what that influence is, no one has yet shown. It has been supposed to consist in a substance called ozone; but ozone has met with an able defender in my friend, Dr. George Wilson. I believe he has vindicated ozone most completely, by showing its beneficial, rather than hurtful, effect on air and life. Other gases have been accused, and seleniured hydrogen among the rest, because, along with sulphur, it is evolved during earthquakes and volcanic eruptions. These most awful of natural phenomena have been known to precede and accompany catarrhal fevers among men and animals, as, for example, Etna in 1556, 1675, 1762; Vesuvius in 1737; Lipari, 1775; Hecla in 1731. (*Ann. Inf.*, p. 381.) Hecker records that along with the plague in Cyprus in 1348 an earthquake occurred, and "a pestiferous wind spread so poisonous an odour, that many, being overpowered by it, fell down and expired in dreadful agonies. (Hecker's *Epidemics of Middle Ages*, Sydenham Society's edition.) The plague in 1347 and several following years is said (by Hecker) to have destroyed 25,000,000 people in Europe. In regard to this, one writer (*Copland's Med. Dict.*, p. 768,) records that it occurred "independent of irregularity of season." "Yet German accounts say expressly that a thick stinking fog advanced from the east, and spread itself over Italy." (Hecker's *Epid.*, p. 14.) One thing is certain that accompanying epidemics and plagues destructive epizootics often appeared among the lower animals. This fact has been recorded by the earliest poets and by all medical historians. Sometimes an apparent glimpse at the causes is thought to be seen, but very frequently no cause is traceable. Again, great want of uniformity exists between effects and alleged causes, and epizootics very often occur without any cause at all being observed. Many have speculated on this part of the subject so much more ingeniously and learnedly than I can do, that I gladly leave the matter in their hands. Weather cannot always, at least, be the exciting cause, as the disease both in man and beast prevails in all seasons. For instance, in regard to epidemic influenza, "in the year 1836 we find the disorder at the same time at Cape Town and London, the season being mid-summer in the one place and mid-winter in the other." (*Ann. Inf.*, p. 382.) "The influenza of 1782 prevailed in Russia in the months of December, January, and February, and in Italy and Spain during the months of July, August, and September; consequently its cause must have been capable of resisting almost the two extremes of European hot and cold,—a degree of permanence difficult to be conceived, if we suppose that cause to have existed in the air." (*Ibid.*, p. 145.) Does influenza spread by contagion? Many veterinarians are of opinion that it does. I have never seen good grounds for thinking so myself. Still, in not admitting its contagious properties, I am very far from wishing to assert that those who differ from me are wrong, and I am well aware that the contagiousness of influenza is believed in by practitioners of great judgment, acute observation, and ripe experience. I think, however, even these must admit that the disease extends between places both near and far, and passes through stables with such irregular steps as a supposition of its contagious nature will not explain. Nothing, says Dr. T. Thompson (*Ann. Inf.*, op. cit. p. 374,) can more forcibly prove the definite character of the influence (causing the disease) than the similarity of the symptoms during several centuries, and under such different degrees of civilisation. Dr. Holland suggests the probability of its dependence on minute or microscopic insects, developed under peculiar states of atmosphere. Mr. Grove (see *Epidemics Examined*) conceives, and on apparently good grounds, that the proximate cause of epidemics, and influenza among the rest, depends on some organic irritant or principle conveyed by the air. But, amid all suggestions, however ingenious, and after considering all theories, however ably supported, we are yet uncertain. Being uncertain, then, as to this proximate or exciting cause, let us wisely resolve to search for it still, rather than quench the spirit of true philosophical inquiry, by binding ourselves to the support of what are only theories, and speculating where we ought to investigate.

TREATMENT.—In numerous mild cases, occurring where predisposing causes are not very influential, a simple attention to what may be called good nursing,

will afford nature the only aid she requires to recover from an attack of this disease. I know an army veterinary surgeon of great experience, who, when influenza appears in his regiment, watches narrowly for cases as they occur, and at once places them under strict nursing. He also diets all the still-healthy horses, and attends carefully to ventilation of the stables. Under this plan, and almost without any medicine being given, his success is nearly uniform—he cannot, for years and years, remember a death. We are too apt to imagine that recovery from disease must be ensured by the aid of medicine, and the art of physic very frequently gains a credit which it does not deserve. In the earliest stage,—say the first day of illness,—we find the whole system depressed—the functions of the skin, and internal membranes, and secreting organs impaired, or even suspended, a small pulse of 60 or so, and the spirits desponding. Nothing, it is plain, is required to add to the prostration—no bleeding, no purging. The first and most important aid we can render is to place the patient where he can breathe a pure, mild, dry atmosphere. This will allow the heart and lungs to work to the greatest advantage with the least amount of labour. A sick horse often repays the luxury of a loose airy box, by recovering more speedily than when tied in a stall. The body must be warmly clothed, the legs bandaged, and a deep bed of good clean straw allowed. Injections of soap and water must be given twice daily to relieve the bowels, and as the patient probably will not eat, let him have gruel, or even water, to drink. The practice of forcing the horse with drenches at this stage is a bad one—it sickens and irritates him. Many horses will not drink tepid water; indeed, it is a sickly beverage, and, so far as I am aware, possesses no peculiar virtues above water that has been allowed to stand in the stable for a few hours. You may think all this treatment nothing; but do you call comfort in sickness nothing? Not one of us would be willing to discard comfort; and why should we deny it to the deserving horse? Do you consider that promoting warmth and secretion in the skin, and, as it were, drawing the blood from within, nothing? Trifling as they may seem, we have known a horse's pulse fall five and ten beats in a minute in less than an hour by the adoption of measures such as these. What medicine can equalize the temperature, and restore action to the skin, so well and so soon as warm clothing? No medicine in the world will constrain the heart and lungs to natural action and function so long as we supply our patient with heated and impure air. If we give sedatives, so called, to lower the pulse, and meantime keep the horse in a close warm stable, we create new symptoms and aggravate those already existing. If the cough be severe, benefit is sometimes obtained by allowing the steam from hot water or bran to pass into the nostrils; this moistens and relaxes the sore membrane, and solicits a secretion therein, which affords relief. A mustard embrocation, or other stimulant applied to the throat outside is often of use. If the bowels be merely torpid and not constipated, purgative medicine need hardly be given, for, owing to the state of general weakness, relaxation of the muscular system, and the congested state of internal organs generally, many cases of influenza have been destroyed by purging. A much smaller quantity of medicine, as 3 drachms of aloes, will act far more severely here, than will a large dose on many other occasions. A little common salt or nitre may be dissolved in water occasionally if the animal will drink it. The clothing and bandages should be removed, shaken and renewed again twice or thrice daily, the legs should be hand-rubbed if cold, and the nose should be sponged frequently with vinegar and water. If by the third day, the mouth should be cooler and more moist, the pulse lower in number and firmer in beat, the bowels, kidneys, and skin acting, the nose discharging a thickish slightly yellow fluid, the eyes well open, the head held higher, and the animal disposed to lie down, we may expect convalescence in a few days more. Cooked roots and small quantities of crushed corn, or best of all, green food, may be allowed sparingly as the appetite returns. In some, and occasionally in too many instances, appearances are worse rather than improved by the third day. Fluid is collecting in the chest and pericardium. Will you bleed? No, I will not, because I never saw it do anything but harm in cases of this kind, and have observed that death has occurred sooner where cases were bled than in others let alone. Bleeding aggravates the disease by favouring



that typhoid state on which the low type of inflammation depends, and absolutely increases the exudation we are anxious to diminish. It also still more lowers the force of the heart, and as a consequence, increases the number and adds to the weakness of its pulsations. We have been too much accustomed to think that inflammation of all kinds and degrees must be combated by bleeding. Take away blood and inflammation cannot exist say some. We know more of the intrinsic nature of this process, than we did even a few years ago, and are quite well aware that inflammation, in selecting predisposed or weakened organs and systems, is not always to be cured by adding weakness to weakness. Every veterinary surgeon with whom I have corresponded on the subject, tells me that his experience is quite against bleeding in any state of this disease. Dietl of Vienna has shown, that by bleeding all cases of inflammation of the lungs in man, and giving emetic tartar also, the deaths amounted to 20 per cent. On the other hand, by discarding bleeding and emetic tartar, by nursing carefully, and allowing spare diet, he found in a trial of three years, on 750 cases of the same disease, that the deaths were little over 9 per cent. The universal bleeding and sedative medicine system showed 20 per cent. of deaths; the complete avoidance of bleeding and sedatives showed less than half that fatality. Bleeding lessens the blood in quantity, and lowers its quality—so does starvation. Bleeding weakens the force of the heart and circulation generally—so does starvation. When an animal is sick, nature wisely takes away the inclination for food, because disease suspends or impairs the digestive and nutritive processes, thus rendering food superfluous; but she cannot always spare blood, and dispense with food at the same time, especially in cases such as these, where disease itself depraves the quality and lessens the quantity of this truly "vital fluid." That a man or a horse, labouring under acute inflammation, with accompanying high symptomatic fever, may be relieved, perhaps cured by bleeding, I can understand and explain. The state of arterial tension, the strong resisting pulse, and high tone of re-action in the system, nurture an inflammation of their own kind. The inflammation here subsists in an "over marked" excitancy of system, the reduction of which by bleeding will reduce the inflammation also. There are many cases wherein the distress is extreme, and yet the amount of inflammation is by no means extensive. In the very last fatal case of influenza which I dissected, the chest and pericardium contained great quantities of fluid, yet the appearances of true inflammation were almost absent. In order "to lower the pulse" as it is termed the use of sedative medicines is advertised by some. I believe the action of these in the horse to be uncertain in the extreme. Emetic tartar has been much relied upon as a sedative; it is always slow to act if it really does possess any active property, but I am convinced that in many, indeed the majority of cases, it has no beneficial action at all. A horse in health can take an ounce a-day for ten days or a fortnight without any apparent effects being produced. A medicine to be worthy of dependence in disease, should exhibit some obvious properties when given in health. Many veterinary practitioners have now entirely discarded the use of emetic tartar, amongst the rest I may name Mr. Lawson of Manchester, who perhaps treats as many cases of influenza as most men. By giving sedative medicine, however, with the single view of lowering the pulse, we treat one symptom, seek to fulfil but one indication, and are narrowly acting on one idea. The pulse will only improve, as the secretions of the skin, bowels, and kidneys are restored, and the diseased processes arrested by a substitution of natural organic functions. So long as disease exists to cause disturbance, the pulse is an index too faithful and true to be beneficially influenced by emetic tartar, digitalis, or any other drug which will not benefit the system at large. It is well known that saline medicines have a peculiarly good chemical effect on the blood in febrile diseases, they also induce gentle action in the skin, kidneys, and even bowels. When a horse will drink water or gruel then (and he generally will take one or both,) let common salt, nitre, or even Epsom salts, be given dissolved in the pail standing in his box. In the stage of actual typhoid inflammation calomel and opium in small doses repeatedly given are extremely useful, by acting on the blood directly, and indirectly on the heart and secretions. These drugs, however, are useless in cases of extreme weakness, or where the exudation is already copious. Here we must give nitrous æther, alcohol, iodine, and diuretics.



Blisters are also of service where the inflammation seems to extend rather than subside under the action of other remedies; many practitioners employ setons and apparently with benefit. But, through all give pure cool air; this is the only thing which is at the same time a sedative and a stimulant; it is the only thing which is equally useful in health as well as in all stages of disease. If water should collect in the chest to such extent as to threaten suffocation, it may be worth while to remove it by the operation of tapping. This, however, is often but a forlorn hope. It gives relief, no doubt, but that relief is often temporary. A case came to the Veterinary College some time ago which was tapped, and upwards of ten gallons of fluid were taken away. Life was apparently prolonged by the operation, but the case terminated fatally. A summary of the treatment then may be thus expressed; avoid everything which weakens the system, and especially avoid free purging and bleeding. Give plenty of cool pure air. Clothe the body to keep the skin warm, for in a cold skin no secretions are performed. Give injections to relieve the bowels, and if absolutely needed give a mild dose of laxative medicine. Give saline medicines in water or gruel, to compensate in some degree for the deterioration the blood undergoes, under the existing typhoid inflammation and exudation. Give small and often repeated doses of calomel and opium to act on the system generally, and indirectly on the seat of disease. Blister or seton the throat and sides if need require it. I have thus merely indicated a very general outline of treatment, because the details can only be carried out by those who have made health and disease the primary objects of their study. You may think my remedies simple; they may be so, but being successful I conscientiously recommend them. I have known and heard of great fatality attendant on an opposite or reducing plan or treatment, that which adds evil to evil by adding weakness to weakness, therefore, against this I conscientiously and sincerely object. Nature will do great things when fairly used, she performs wonders when really aided by art and science. But to treat influenza on the system of "copious bleeding," "free purgation," and "wholesale blistering," is to destroy her resources; it is, in fact, to trifle with life and parley with death, and one mourns for the reputation of the healing art when this is called medical practice. It may be, and, alas! too often is, a system of practice adopted by the routinist and empiric, but so far as influenza is concerned, it is not the practice adopted by the rational practitioner of a rational veterinary medicine.—*North British Agriculturist*.

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### MR. MAJOR'S ADVERTISEMENT.

*To the Editor of 'The Veterinarian.'*

3, GREAT COLLEGE STREET, CAMDEN TOWN;  
27th March, 1853.

DEAR SIR,—Excuse this late application for notice in 'THE VETERINARIAN,' but I find in the papers of this day, namely *Bell's Life*, the *Era*, and *Sunday Times*, advertisements from a person called MAJOR, proposing a remedy for the cure of spavin, &c., in horses, introducing a testimonial with my signature. I have to state such testimonial is a *forgery*. I never, *directly* or *indirectly*, have had any communication with Mr. Major; nor never, to my knowledge, until seven o'clock last evening, saw the man. At that hour he called at my house, and stated he had published the above-named advertisement. I in return gave him to understand that, if possible, I would adopt legal proceedings against him for the forgery. I will give you further particulars another time.

I am, your obedient Servant,

RICHARD VINES.

## THE VETERINARIAN, APRIL 1, 1853.

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Ne quid falsi dicere audeat, ne quid veri non audeat.—CICERO.

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THE Board of Officers sitting, some short time ago, in Committee on the System of Shoeing practised in the Cavalry, consisted of three Colonels, with the addition of the Principal Veterinary Surgeon, and the Veterinary Surgeon of the Royal Horse Guards: the following regimental veterinarians and private practitioners being desired to attend, to represent (by patterns brought with them) their respective methods of horse-shoeing:

Mr. Percivall, 1st Life Guards

„ Wilkinson, 2d „

„ Legrew, 13th Light Dragoons

„ Byrne, 4th „ „

„ Owles, 6th „ „

„ Constant, 17th „ „

Messrs. Field, Turner, and a gentleman from  
Mavor's.

The veterinary surgeons of the army are at all times extremely happy to meet their brother civil professionals; but, on this occasion, there was unavoidably present, in the breasts of the soldiers, a feeling of hurt that their practice of shoeing should have to be scanned by the practice of civilians, and that the latter should have been called in to lend aid in a case where, surely, out of all the regimental veterinarians, sufficient number or sufficient talent, could not be found to settle the question, without resorting to extrinsic ability. We say this, not in the slightest disparagement, or while harbouring any wrong feeling whatever, towards our professional brothers and friends: our only hurt-feeling consisting in the circumstance of its being imagined that we were not competent, of ourselves, to pronounce upon the shoeing of cavalry horses, without calling in the opinions of civilians who had never “seen a shot fired.” For our own part—and we may say the same for others, and for some even who were not present—we certainly felt ourselves on the occasion, purely military as it was, degraded in our having been made to seek non-military assistance. We repeat, we

feel quite sure, these remarks will not create the slightest feeling of an unfriendly nature among our friends whom they concern ; since they, after all, were but *passive* agents in the business.

This, however, is but a small matter when compared with the horse-shoe which the Committee have inflicted on the regiments. There are veterinary surgeons in the cavalry of many years' standing, who, from a love, and even an enthusiasm, for shoeing, have cogitated and manipulated this matter over and over again, in order to make sure of arriving at the shoe best adapted, in their opinion, to the requirements of the service ; and, after years of reflection and toil, they have, in their own minds, hit upon that shoe : and now, for these men to be told, that the shoe they have fixed upon is to be cast aside for one of the commonest and most objectionable description, is, to say the least of it, mortifying in the extreme. The sole advantage gained by such an introduction is *uniformity* ; while the disadvantages it brings with it are several and serious.

From what has been said, it might, and with good reason, be argued, that, had a committee of regimental veterinary surgeons, having all their own, and most probably different, opinions on shoeing, been appointed, they would never have come to any agreement among themselves as to which was the best or most proper shoe. As far as we are acquainted, however, with the various methods of shoeing practised by the army veterinarians, the shoes all admit,—with the single exception of the old-fashioned shoe, now adopted,—of reconciliation—in other words, of being amalgamated into one improved, safe, and uniform system of shoeing. With regard to the concave shoe, and the placing it upon the unpared sole, all the old army veterinarians are agreed ; they differ only on the one point of turning the shoe up at the toe—rocking-horse fashion—as the French do.

If it be asked how such a change,—novel and strange perhaps as it may be to some regiments,—was to be brought about, so as to establish uniformity among the whole of the cavalry, we would reply, “ Let so many regiments who already understand the plan be made *model regiments* ; and

let all regiments who do not understand it send, in turns, one farrier each to a model regiment to learn it, in order to be able to introduce it into his own corps. From the different cavalry regiments stationed at any point of ready approach, a meeting of veterinary surgeons might now be arranged, and a consultation held on the subject; but, quartered as they are all over this and the sister-country, such an assemblage could hardly be managed.

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The Royal College of Veterinary Surgeons has more than once or twice been twitted with being "a shadow without a substance"—a body without a place "to lay its head in." There is every reason to believe that such imputations will not apply for any great while longer, even if they do at the present moment, since we hear that, not a hundred miles from Bloomsbury Church, a house has been taken, which a few short weeks may convert into the Royal College of Veterinary Surgeons. Since this was written, the following official Report has reached us:

#### ROYAL COLLEGE OF VETERINARY SURGEONS.

Three special meetings of the Council have been held on the following dates: February 2d, February 23d, and March 9th, 1853. The first was presided over by Mr. S. Baker, and the last two by Mr. Goodwin, Vice-Presidents. These meetings had reference to the obtainment of a residence for the general purposes of the corporate body, which it was hoped had been effected, it having been unanimously resolved that the lease of a house should be taken. A committee was formed for the purpose of carrying out this resolution; but unforeseen circumstances have arisen which have obliged the Council to postpone the question for future consideration.

This desirable object will, however, not be lost sight of, and a full detail of the proceedings will be given as soon as it has been carried out.

JAS. B. SIMONDS.  
W. J. GOODWIN.  
E. N. GABRIEL.

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#### ERRATUM.

Page 130, last line of Mr. Daws's Paper, for "*suspicion*," read "*empiricism*."



THE  
VETERINARIAN.

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MAJOR'S "BRITISH REMEDY."

By EDWARD DYCE, M.R.C.V.S., E. & L.

*Principal Veterinary Surgeon to the Mounted Constabulary Force  
of Ireland.*

MR. EDITOR,—Sir, it hath been said,

"'Tis pleasant sure, to see one's name in print;  
A book's a book, altho' there's nothing in't."

A pamphlet has just fallen into my hands entitled "Major's British Remedy," which, *en vérité*, cannot be said to be destitute of matter (*of Doctrines most absurd*), the perusal of which to me hath been a source of much amusement. The compiler has entered into detail as to his pedigree, and informed his readers that his *sire* was a "Farrier and Cow Leech."

Well, on arriving at the *finis* of his pamphlet, the truism, "*similia similibus generantur*" is fully confirmed in the person of Mr. Joseph Major, who, however, hath kept good time with the present age (in I was about to write *Humbug*) seeming to be in the enjoyment of as deep a state of ignorance on the subject which he attempts to treat as the Farriers contemporary with his father. Therefore, it seemeth not to me strange that Mr. Major should have libelled the common-sense and judgment of so many hundred veterinary surgeons, who for the last fifty years have with success employed the "actual cautery" as a remedial means for the cure of spavins, ringbones, curbs, &c. Nay, more; he hath actually libelled so many of the profound and learned in human surgery, who in the present age are compelled to have resort to the "actual cautery" for the cure of exostotic and neuralgic diseases, together with tendinous strains, &c. However, Mr. Major seemeth to have coupled with his audacity much courage in

bearding (as he boasts) the professional *lions* in their den. For, robed in philanthropic garb, and pitying the sorrows of the poor old horse,

—did he  
From the Western world's shores,  
To our fond Alma Mater, bring  
His never-failing bone-dispersing drops,  
And with subtle words  
To her high conservators—said

with unpresumptuous diffidence, Oh! Professors—and without anticipation of emolument—I offer to your notice my *specific* for trial in any cases that you may have in your hospital. A most insidious plot, and well concocted, to obtain a full-toned trumpet to proclaim afar his monstrous nostrum; for well, no doubt, did Mr. Major know, *when spavins, curbs, ringbones, &c., are curable*, the *veriest* tool can do so by counter-irritation of some or any sort; and as his nostrum (perhaps his father's *black oil*) is, as he asserts, a “sloughing” irritant, of course, then, out of many cases, why should not Mr. Major succeed in some? When offered within the sacred walls of our ancient Alma Mater, however, the gods within did not so decree, *and with calm but stern dignity* replied—No! Major,

“Thy satchel  
Thou shalt not uphere hang.”

With that he went his way, nothing daunted, in search of other means on which his nostrums still to try. He informs us, *he was* successful in obtaining a patient, the property of an extensive omnibus proprietor, viz., a brown mare, afflicted much with *ringbones* and *spavins*, on which he used his “British Remedy,” and, as *he* asserts, with complete success; a record of which I find in his pamphlet. In it, however, there seems a strange economising of truth; for the Messrs. Wilson, who are members of the firm alluded to, informed me, *personally*, that the brown mare *was not cured* by Mr. Major's “British Remedy” of ringbones or spavins. So much, then, for the first case professed and asserted to be cured by the “British Remedy.” Passing over, then, the various other cases of cure registered in the pamphlet, *however true or false they may be*, I arrive almost at the termination of the list of *cures*, and find one of Major Pitt's horses stated to be a successful case, but, from incontrovertible authority, proved not to be the fact; therefore, with these “cum multis aliis” we find a vast economy of confirmatory facts.

Arriving, in my perusal of the pamphlet, at page 8, I find

quotations from Youatt, as to the nature and treatment of ringbones, spavins, splints, &c. With sorrow I exclaim, "To what base uses may we not return." After plagiarising the *able*, *true*, and *practicable* quotations from the author in question, Mr. Major proceeds as follows:—"Allowing that the extract given from Mr. Youatt's book represents pretty fairly (mark the effrontery—'represents *pretty fairly*') the diseases of ringbones, spavins, splints, curbs, &c., as laid down by our scientific men, and the means there described as those necessary for the cure, in the name of common-sense, does the actual cautery *decompose* the ossification, and remove the difficulty?" In reply, what in the name of common-sense does Mr. Major mean by "*decomposing* a spavin or ringbone?" He proceeds to ask, "does a blister *lubricate the ligaments?*" Where did Mr. Major ever hear of ligaments requiring lubrication, or has he the slightest idea of the functions of ligaments? He continues asking, "has nature given more ligaments or more cuticles than are necessary to perform nature's works?" Really, Mr. Editor, I cannot at all understand the last query. What in the name of conscience can possibly be its bent? I am greatly afraid that a little learning is becoming truly a dangerous thing to Mr. Major. Again, he asks, "have more than one case in fifty of the cases in question been effectually cured by veterinary surgeons' treatment of firing, &c.?" I will answer by reversing the tables, and state, that little more than five out of fifty remain uncured, under professional superintendence, and previous judgment as to the propriety of using any *remedial means*; knowing, as we do, from anatomical and physiological observation, when the diseases in question are curable, or, that is, whether arising from *mechanical*, or *solely functional*, (the result of pain,) or from other causes.

He proceeds to say, "but this, we are told, must be the practice; this the only mode of cure," *i. e.*, firing for the cure of spavins. I must kindly reply, that, whoever informed Mr. Major that such was the fact, deluded him with the most egregious "American," inasmuch as the veterinary profession do not hold firing as a specific in the cases to which he refers, no more than they do *setoning*, *blistering*, or *Major-izing*; for if they did, they would be descending to the degradation of empirics or charlatans.

Mr. Major goes on to observe, in the blandest manner—"Supposing that I, by my simple application, without torture or suffering to the *animal*, am able to cure no more than what has hitherto been done with the present practice in one half the time, and for one quarter of the expense, then am

I in advance of the present system. But when the present system has exhausted its abilities, and has tortured the animal twice, or even thrice, each time receiving the fee, after all have failed, and then, under my treatment, have been returned to their owners perfectly sound, and without torture," &c. &c. Now, Sir, I would use a vulgarism—"not so fast, Mr. Major; you assume as *facts* what I assert to be the contrary, and shall judge you from your own pen." In page 10, Mr. Major states that his remedy *decomposed* the ossification, or predisposition to ossify, and, more marvellous than all, "without giving the animal pain." Why, therefore, I ask, does Mr. Major enter so much into detail at page 13, of the treatment to be pursued at a time when his *innocuous remedy* causes *sloughing*, which is well known to be the last stage of inflammation and pain, and to be preparatory to the death of the subjacent parts? No wonder, indeed, there should be a *permanent cicatrix* on poor Major Pitt's horse! From the above facts, how can he assert that he can use his remedy without pain? Therefore, to him and the public there has been a grand delusion.

I had almost forgotten the quotation of Major's Lotion, to cure the "sloughing effects" of his Remedy. But it is such a "*run*" one I must quote it, since it puts me in mind of a Farrier Major, who set up in business in a town where there were three veterinary surgeons in good practice. He purchased a barrel of whiskey, bottled it off into eight-ounce vials, advertised it as "*A Farrier Major's Remedy*" for Worms. The first groom that came to the pharmacy, and received "*The Remedy*," was informed, that if any of the bottle should be left, after effecting a cure on the horse, and if he himself, or any of his children, were affected with worms, it would be equally efficacious with them, as it was *quite innocuous*. To prove which, the Farrier Major put the Remedy to his mouth, and swallowed an ounce of it, and requested the groom to do the same, which he did, and liked it very much, for he "*smelt the rat*." He returned in a week after, and said *all* his master's horses were affected with worms, and received the requisite number of bottles of the "*Remedy*." Day after day, *shoals* of grooms arrived at the laboratory of the Farrier Major for his "*Remedy*." In fact, there was a *worm epizootic*—all the horses in the town were constantly being eaten up with worms, and nothing could cure them, but the "*Farrier Major's Remedy*." It is needless to say the "*Remedy*" was soon found out: it told its own tale.

Mr. Major recommends, in cases of "SLOUGHING," arising from his Remedy, the following lotion:— 'HALF A PINT



OF RUM, half an ounce of carbonate of soda, and half a pint of *urine*." If it should happen, however, that there should be no "sloughing," then the *rum* and goose-grease only are needed. I am sure any groom would prefer the non-sloughing lotion, otherwise he would be a RUM GOOSE. Fallacies, however, are apparently most marketable commodities to Mr. Major, inasmuch as he professes to cure spavins, and at the same time entertains the most preposterous ideas as to their nature and effect! He states "spavins, as is well known, *paralyses* the *whole* of the muscles of the hinder extremities." For those, however, who it is necessary should understand, it is sufficient only to say, that the muscles being paralysed is plainly shown by the withered thigh and buttocks, the contraction of the limbs, and the general want "of condition in the animal. Remove that cause, and the effect ceases." The absurdity of the assertion of a paralytic state of the muscles existing in a case of spavin speaks for itself, and requires no comment further than, who would not laugh at the idea of ankylosis of a finger-joint causing paralysis of the muscles of the arm! or an ankylosis of the knee-joint causing paralysis of the muscles of the thigh!! Certainly, there has been some little practical observation on the part of Mr. Major. The muscles of the quarters, sometimes, in very extreme and chronic cases, are atrophied in the same proportion as Mr. Major's arm would be if placed in a sling for a year, and was then compared with the other, which had been in active use; the effect being attributable to a well-known cause. Mr. Major, proceeding, states that his motto is "common-sense and simplicity." I ask, in common-sense and simplicity, why prostitute the terms, and employ them to his acts, stating, as he does, that his "synolitic lotion" is particularly worthy of the attention of trainers of race-horses, as a preventive!!!! of breaking down! or, in other words, rupture of the fibres of the back, tendons, or laceration of their sheaths? Is Mr. Major so simple as to conceive that the present age could possibly credit so absurd an assertion, or that which is a parallel, conceive *a lotion that could PREVENT a ballet-dancer straining her ankles, or rupturing her tendon-Achillis*, whilst figuring and pirouetting in 'Griselle,' or some other popular ballet. Mr. Major, surely, can be only assuming a logician's science, arguing on false premises, to make absurdities doubly more absurd.

Fearing that my observations on Mr. Major's pamphlet have already taken up too much space in your valuable Journal, I shall not enter into any further remarks on the ridiculous

fallacies under which Mr. Major labours, especially as he states, he will pursue the same course in his remarks on spavins as he has on his Remedy number one.

I have the honour to be, &c.

DUBLIN; 18th March, 1853.

P.S. Of course, Mr. Editor, any phraseology in my remarks towards Mr. Major, have merely reference to him as compiler of the pamphlet.—E. D.

\*.\* At the time the above was written, Mr. Dycer had not seen Major Pitt's contradiction of Mr. Daws's opinion of the treatment of his horse; neither could Mr. Dycer, of course, have seen the following communication from Mr. Major.—Ed. VET.

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## BRITISH REMEDY.

BY JOSEPH MAJOR.

SIR,—Although you have thought proper to give, in your March Number, what you are pleased to denominate a “truthful” statement by Mr. Daws, but which I must at once call an unwarranted and unprincipled attack upon me and my “British Remedy,” and is only “part and parcel” of the conduct of that individual to carry out his often-repeated vain-boasting to put down me and my mode of treatment,—boastings which are to me as contemptible as they are futile. Since, Sir, from your character and position in your profession, I cannot bring my mind to think that you yourself would willingly pervert facts so simple in themselves, merely to put down what you may consider “humbug,” I have therefore to ask you, if your object be to elicit truth, to give insertion to the following, which, I can safely say, is a *truthful statement*, and I defy contradiction to the contrary.

In what you state as regards your own conduct towards me, you would wish to make it appear that I wanted to decline experimenting upon the horse you provided for me, and try to make it believed, that I excused myself for so doing because there was no room in my infirmary. By this, you would wish it to be known that I used that as a subterfuge; but it is very far from the fact. As soon as possible, after receiving your intimation, I waited upon you, when you stated you had the horse in question, and wished me to

treat him at the barracks. I refused to do so, as I had not then received my patent, you alleging that the Colonel would not allow the horse to be sent away, as nothing would be allowed for the treatment. I at once said that I would remove all difficulty on that head, for I would both keep and treat him for nothing, and by my success or failure I would be judged. In about a week after you called at my infirmary, and said you had obtained the Colonel's consent, that the horse should be sent the next morning at eight o'clock. At the time appointed I had a box properly prepared to receive the horse, waited anxiously for more than a week for his arrival, and then considered that it was only on a par with the other treatment I was then receiving from veterinary surgeons. Horses were now crowding upon me—my infirmary was full; and when, after *eleven days* had elapsed, I considered I had only been fooled, I at once refused to have any further to do with the case, especially as I had triumphantly proved the truth of the effects of my "Remedy."

With respect to Mr. Harry Daws, I can assure him that I can well afford to treat with contempt his abuse of me; and as for the "less scientific and ignorant men of the profession," they must answer for themselves, and it will only prove, if he is right, that diplomas are given to cloak ignorance and want of scientific knowledge. I can tell Mr. Harry Daws, however, that men in all parts of the country, of the first rank as veterinary surgeons, are using my "Remedy" as a substitute for "firing;" and if you, Sir, wish to be satisfied of that fact, I shall be ready at once to give you proof. Mr. Daws's *truthful statement* is a wanton perversion of facts, and is worthy of his communication to *Bell's Life* on the horse I cured for spavin belonging to Major Pitt. In a note to a letter from Mr. Sibbald in your last, you say that only one horse was treated by me, and that was a failure. I treated *two* for Major Pitt, and they were *not* failures, which I am ready and willing to prove. Mr. Harry Daws wrote to *Bell's Life*, after going to the Regent's Park Barracks, and surreptitiously writing a certificate, in which he had the unblushing effrontery to say, that that horse had not been relieved of a spavin, and that curing was out of the question. Major Pitt thus answers him:—

"MR. EDITOR,—I have seen my name occupying a prominent place in your columns for some time past; and last Sunday a member of the veterinary profession thought fit to give, unasked by me, a certificate of unsoundness on a horse of mine he merely asked permission to inspect. I

have no wish or intention to enter into any controversy with veterinary surgeons ; but, in justice to Mr. Major, and for the benefit of others, I wish to state, I have seen nothing to alter the opinion I at first expressed. On the contrary, the horse has been daily undergoing the severest test—that of bending and passing in the riding-school—and is considered by all the officers to be perfectly sound. Begging to decline any further correspondence on the subject,

“ I am yours, &c.,

“ HORACE PITT.

“ REGENT'S PARK BARRACKS ; March 15.”

The horse was sent to my infirmary to be inspected, and all who came, in an open candid way declared, there was no truth in the statement of Mr. Harry Daws, many being veterinary surgeons ; and although they did not wish to be mixed up in any controversy, I shall be happy to satisfy you of the truth. I send you two, however, which, perhaps, Mr. Daws will class in his category of “ ignorant or unscientific ;” but they are ready to meet him, and measure with him his splendid acquirements :—

“ To Mr. Joseph Major.

“ From the request of several parties, I have this day examined the charger belonging to Major Pitt, about which there has been so much conflicting opinion as to his soundness. Having been under your treatment for a spavin, I most positively say that he is this day sound. You are at liberty to make what use of this you think proper.

“ Yours respectfully,

“ S. BRADSHAW, M R.C.V.S.

“ ALBANY STREET BARRACKS ; March 15th, 1853.”

“ March 14th, 1853.

“ This is to certify that I have this day examined, at the Regent's Park Barracks, a black gelding, six years old, belonging to the Hon. Major Pitt. He has been operated upon for spavin on the off hock, which spavin has been totally removed ; there is a slight cicatrix from treatment, on which there is every appearance of the hair being eventually restored. The horse at the present time is perfectly free from lameness.

“ WILLIAM WILKS, M.R.C.V.S.”



I should like to know who is in the background; for I really believe that Mr. Harry Daws is only put forward by those who dare not show themselves. In his "truthful statement," he mentions Mr. Evans's cob; and, on my sending to ascertain the truth of Mr. Cook's letter, Mr. Evans at once expressed his indignation at such conduct, and wrote me to the following effect:—

"I observe a letter in the "VETERINARIAN" from Mr. Robt. Cook, dated Erith, February 15th, 1853, stating that my cob received no benefit from Mr. Major's treatment. This I altogether deny, and that Mr. Cook had no authority from me for this statement.

"DAVID EVANS.

"121, CHEAPSIDE; March 22d, 1853."

With Mr. Rennison's the same, the horse was sold, and no complaint was made about it, which would have been the case had it been as Mr. Harry Daws had stated.

I could go on much farther, and send you the different certificates I am in daily receipt of; but it is not necessary. That there must be some failures I will admit; but that more than seven out of ten have been cures I can prove, and even more than that number under my own treatment. Grooms and others who have followed out my instructions, have applied the "Remedy" with the utmost success; while I admit that veterinary surgeons have in some instances failed, when they have set up their own ideas before my mode of treatment.

If by such means as I have described Mr. Harry Daws (or for whoever he may act) thinks to put down what I know to be true of the effects of my medicine, he will find himself mistaken. To me, he has proved my best friend, as, by publicity or inquiry, my practice will be proved to be truth, and a substitute for the barbarous use of the "cautery" at once established.

To you, Sir, and all professionals and others I hold out the same invitation I have ever held—"Come and see, judge for yourselves, and try my mode of treatment in contrast with the old practice of "firing and blistering." I am ready to abide the decision.

Yours respectfully,

JOSEPH MAJOR.

HORSE INFIRMARY, 28, SHEPHERD STREET,  
MAY FAIR; March 28th.

## RUPTURE OF THE STOMACH.

BY W. MILES, M.R.C.V.S., LONDON.

DEAR SIR,—I send you the subjoined transcript from my case book, not from the rarity of the subject, but as an interesting record of the absence of all those urgent associated symptoms, usually accompanying *so fatal a lesion*, as well as of the consequent difficulty of forming a correct diagnosis about our silent patient.

The subject, a half-bred stallion, eleven years old, in beautiful condition, belonged to a car-proprietor in this city, a good horse master; and he was driven by a careful, steady servant, (a *rara avis* in this part of the world.) I mention these *trivialia* to show he was not subjected to any ill usage. I was called in on Monday, March 28th, at 10, p.m., and informed that the animal had shown slight but continued symptoms of "*gripes*," from the previous Thursday. He had been doing no work since Friday, when he went with a funeral to the Botanic Gardens (about one mile and a half). On Saturday the Farrier gave him a ball, (a dose of physic, I presume,) which had not operated. On the Sunday morning he had been walked to water, but of which (it was said) he did not drink a dozen swallows. He had neither eaten nor drunk since; had been constantly uneasy, lying down, looking at his sides, rolling on his back, and remaining tranquil in that posture ten or twelve minutes. He had passed no *fæces*, but had staled often, in small quantities.

**SYMPTOMS.**—Pulse 60, full and soft; respiration slightly humid; flank rather tucked up; ears and legs cool; body warm, skin glossy, mouth warm, nasal membrane a little high coloured, eye full and lively.

As soon as I had finished my examination, the horse recommenced pawing, then turned round several times, with his nose to the ground, desirous, but apprehensive, of lying down; at length, with the utmost care, he softly let himself down, stretched on his side for a second, rolled upon his back, and then remained still.

**DIAGNOSIS.**—Enteritis, supervening on colica spasmodica.

**TREATMENT.**—After abstracting about 7lbs. or 8lbs. of blood, the pulse fell to 45, and became so weak that I stopped further abstraction. I administered an aperient opiate draught, and laxative injection, had the legs hand-rubbed and banded, and left him apparently easier.

*Tuesday, March 29th, a.m.*—Much the same. No relaxation or exacerbation of symptoms; pulse 50, soft and weak; legs

and ears warm; refuses all food or drink. Opiate draught every two hours; raked, and gave a purgative and opiate enema. Found no fæces in the rectum. Stimulant embrocation to abdomen.

Continued throughout the day in the same state.

*Eleven, p. m.*—Rather more tranquil. Owner very anxious to drench him with gruel, fearing he would sink from inanition; but, as I had noticed the pains became more acute immediately after his draught, and felt assured, from the strength and agility with which he arose, when called on, that there was little debility, I forbade them giving anything but in my presence.

*Wednesday, 30th, 8, a. m.*—Passed a very uneasy night; and as there were no signs of the physic operating, I now became uneasy about him, and told the owner I suspected strangulation of some part of the ilium. Pulse 45, weak but distinct, *without any wiryness or tremulousness about it*; legs, ears, and skin of body comfortably warm.

Repeated the opiate draughts, laxative and opiate injections, and applied a powerful liniment to the abdomen.

*Two, p. m.*—Passed some small dung-balls, covered with a thick, slimy pellicle. Remission of pain succeeded; he appeared quite strong and lively, and looked about for food and drink. I began to hope the physic was operating, and all would yet be right. Pulse 50, and stronger, which I attributed to the irritation of the liniment. The owner gave him several horns-ful of gruel.

*Six, p. m.*—Symptoms returned. I now learnt, for the *first* time, that he had been seen *sitting upon his haunches* several times. I immediately conjectured there might be rupture of the diaphragm or stomach, or hernia. I closely questioned owner and men, and at length elicited, *as a matter not worth mentioning*, that on the Sunday morning (it being a very cold morning), the man who watered him, "*warmed the water in his belly*," ANGLICE, gave him a brushing gallop. While talking, the patient arose, stretched out his fore legs, and squatted upon his quarters, like some heraldic nondescript. But there was no cold sweat, *no* tremors, or convulsive movements of the tail; *no* attempts at vomition, nor ejection of fluid from the nostrils; *no* tympanitis; *no* tenderness of side on pressure; *no* roaching of back, nor stretching in stall, nor recurvation of the neck; *no* groaning, nor violent agony; and the pulse throughout distinct! Being well aware how little dependence can be placed on any diagnosis founded on particular attitudes, or modes of expressing pain, I determined (unless some other ill-boding token assured me of the uselessness of continuing my labours) to persevere in my treatment; warning the owner that, from the long continu-

ance of the pains and the obstinate constipation, I had little or no hopes of a favorable result.

*Nine, p. m.*—Pulse rising in number, but sinking in force; legs and ears cold; gradually, the animal heat of the whole body subsiding, cold froth issued from his mouth; his pulse became indistinct; he stood perfectly quiet as life ebbed away, and fell dead, almost without a struggle, a little after midnight.

**AUTOPSY.**—On opening the abdomen, I observed extensive adhesions of part of the cæcum and ascending portion of the colon to the peritoneum (but not the result of recent inflammation). The cavity of the abdomen full of fluid faecal matter. While carefully searching for the rupture, I observed some slight traces of inflammation on the transverse colon, and the mesenteric arteries and veins beautifully injected. On removing the intestines, I perceived the stomach collapsed, lying flat upon the liver, and smothered in a mass of half-digested aliment. The fissure was about three inches long, and was in the large curvature, inclining towards the spleen, which organ was not larger than that of a calf. The interior of the stomach was as clean as if it had been washed; there was not a particle of food within it; the rugæ of its mucous coat were very large and prominent. The scissure in the peritoneal coat was longer than that of the muscular, forming an elliptical opening, and showing the laceration of the muscular fibre very distinctly. The mucous coat, I *fancied*, showed *very* faint symptoms of gastritis: it was of a higher colour than is usual in health. The large and the small intestines contained a considerable quantity of fluid excrement, but there was no manifestation of disease in them. Liver, lungs, heart, bladder, kidneys, &c., all healthy. He was amazingly fat.

**OBSERVATIONS.**—I conclude, it was principally an attack of spasmodic colic, from suppressed digestion (the horse was a great feeder), and that the rupture was caused by galloping him on the Sunday, after being watered; and that after the stomach had been emptied into the folds of the omentum, it had acted as a valve, stopping the breach, and diminishing the pain that any ingesta might cause, by escaping; hence, the animal instinct of refusing all food. The reason why there was no vomition, was simply because there was nothing to vomit.

Hoping I have not trespassed too much on your valuable time and space,

I am, dear Sir, &c.



## RUPTURE OF THE DIAPHRAGM AND STOMACH, WITH THORACIC HERNIA.

By WILLIAM PERCIVALL, M.R.C.S. and V.S.

THE present case, though, as is indicated by its heading, different in some important respects from the one of Mr. Miles', preceding it, yet will it be found to have some points of analogy.

On the 4th of April, 1853, two days before my regiment, then under orders, marched to Windsor, a troop-horse, 17 years old, of strange temper and wilful disposition, was brought to me for having hurt himself "behind," by falling down in his stall while asleep. I did not, at the time, believe this report of his hurt, and for two reasons, one being that the lameness in his hind quarters was too great to render it likely it had been caused in such manner; the other, that horses that sleep, standing, rarely, if ever, actually fall down, but generally catch themselves up in the erect posture again the moment they feel their legs failing and bodies sinking. Still, there was one thing in the case before us to be taken into the account, which was, that this horse had never been known to lie down to take his rest.

When first I saw him run, and even walk, the horse quite hobbled with his hind parts, rather dragging his posterior extremities after him than using them in action. My opinion was, that he had received some injury in the loins; though afterwards I was shown a mark of contusion he had upon one hip-bone. Being so near the march I could not venture on physic, therefore ordered continual fomentation and repose, hoping he might, next day or the day after, be well enough to be led to Windsor. Next day, however, he was lamer, and all prospect of his being able to walk such a distance was at an end. It was therefore arranged that he should travel by railway.

On the 7th of April, the day after the march to Windsor, I found him in *statu quo* he was in in London. I ordered him now some opening medicine, with the repetition of the fomentation, and the addition of stimulating embrocation for the parts supposed to be hurt. The physic operated freely, and took him off his feed. Under it, gruel was substituted as drink for his water.

On the evening of the day (the 11th) on which the physic had set *in the morning*, the old horse was seized with symptoms of "gripes." I was called at 7 o'clock to him, and

found him being led out by the man looking after him. I immediately ordered him back to his box, though the moment he arrived therein he recommenced symptoms of violent abdominal pain. He lay down in spite of us all, and as speedily as possible rolled upon his back: the position he seemed to find most relief in, since he would retain it for minutes together. The pulse was not thready, nor small, but of the usual fulness, and very quick—70 or 80 perhaps. The pains were periodical—every five or six minutes, and so sharp that he twisted and writhed about in every direction, until he could lie down and roll again upon his back. In about half an hour after my arrival, while forced up in the standing posture, to admit of the administration of remedy, he, in spite of all restraint, bored his head forward, with rolling eyes and dilated pupils, as though the pain had driven him into a state verging on delirium. By ether and laudanum his pains were allayed, and even for so much as an hour at one time were suspended: they, however, returned again and again, until half-past 3 o'clock of the morning of the 12th, at which time he lay down and died without any further struggle.

**AUTOPSY.**—We were not a little anxious to discover the cause of death in this case; though it was evident from the time of the manifestation of delirium that death was entailed upon our patient.

*The abdomen*, when first laid open in the usual way, presented, superficially, a normal aspect, both in the colour and position of the viscera; on removing the large intestines, however, some bloody fluid was found flowing along the spine, at the bottom of the cavity; while in front, the liver appeared to be occupying more space than usual. But what was above all most strange in the manipulation, no stomach was to be found. Diving deeper still, however, into this mysterious corner, a hole was felt in the diaphragm, through which the stomach, and with it part of the duodenum, had escaped into the cavity of the thorax. The rent in the diaphragm was a large one, extending from the spine to its middle, as far as where the cordiform tendon commences, by which further extension seemed to have been arrested. The margins of the rupture did not indicate *recent* rent; they were rather rounded and smooth, as though the breach was of some standing. The stomach was quite full of masticated hay, having that fresh character as though it was (as it was in fact) the latest hay the horse had eaten. It smelt strongly of the medicine the horse had taken, but otherwise presented nothing unusual to the appearance of such aliment in the first stage of digestion.

At the fundus of the villous portion of the stomach the parietes had slightly given way, and let out aliment ; but not yet to any considerable extent. The œsophagus appeared simply curved forward, but the duodenum seemed twisted ; both, however, were perfectly pervious. Signs of inflammation were evident in both, within both stomach and duodenum, and about the latter there was a good deal of peritoneal reddening as well, which discoloration it was that first led us to the seat of disease. This may likewise account for the bloody serous effusion into the cavity of the abdomen.

REMARKS ON THE CASE.—In my own mind, I am inclined to suppose that the original injury, whatever it was, occasioned a rupture of the diaphragm, and that at some subsequent, perhaps remote, period from this accident, the hernia of the stomach and duodenum took place. It might be argued that the diaphragm was ruptured in the struggles or falls the horse had while in pain from cholic. I do not remember any such case, however ; and besides, the rent had no appearance of being a recent laceration. That the animal could have had the hernia any long time before death seems unlikely. Indeed, I would ascribe the cholic to its presence, and should be disposed to think, that the physic (the breach in the diaphragm being ready to receive it) might have been the occasion of it. I do not remember having seen hernia of the stomach before ; neither can I bring to mind any parallel case. Probably some one or other of the 'VETERINARIAN'S' readers can *and will* produce something analogous to it.

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#### MAJOR'S BRITISH REMEDY.

*To the Editor of 'The Veterinarian.'*

SIR,—The cases mentioned in my last are now *at work*, and wishing to give them sufficient time to prove their soundness or unsoundness, I must defer, until next month, sending the particulars. In haste, Dear Sir,

Yours respectfully,

THOMAS GREGORY, M.R.C.V.S.

TUNBRIDGE; *April 18*, 1853.

## REVIEWS.

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Quid sit pulchrum, quid turpe, quid utile, quid non.—HOR.

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*Traité de Maréchalerie Vétérinaire; comprenant l'étude de la Ferrure du Cheval et des autres Animaux Domestiques, sous le rapport des défauts de l'Aplomb, des Defectuosités, et des Maladies du Pied.* Par A. REY, Professeur du Clinique, Pathologie Chirurgicale Jurisprudence, et Maréchalerie à l'école Vétérinaire de Lyon. Lyon, 1852. 8vo, pp. 498. Intricalée des gravures.

*A Treatise on Farriery; comprising the Art of Shoeing Horses and other Domestic Animals, in relation to defects of Aplomb, Malformations, and Diseases of the Foot.* By A. REY, Professor of Clinique, Surgical Pathology, Jurisprudence, and Farriery at the Veterinary School of Lyons. Lyons, 1852. Illustrated with woodcuts.

(Continued from p. 139.)

QUITTING the anatomy and physiology of the foot, M. Rey conducts us into the workshop, or, as we with less precision than the French call it, the *forge*: they confining the word *forge* to the furnace or fire itself. Nor does he leave this department of manufacture of shoes, and adaptation and fixture of them to the feet, before he has particularised and described, not only every fitment and utensil of the farrier's shop, but actually given accounts of the various kinds of fuel used therein, and the various kinds and qualities of the iron whereof the shoes are made. Herein consists one grand difference between a French and an English author: while the latter confines his inquiries immediately to the naked subject of which he is treating; the former will make discursive sallies into every subject directly or indirectly connected with his main one, so as to leave his reader in need of no collateral information that can in anywise conduce to its elucidation. The chapter (*du fer*) on iron, we cannot pass over without advert-  
ing to some few facts, which, while they are far from being



uninteresting to any of us, may to some of us prove really instructive and useful.

“Iron is a metal of the most ancient introduction. From time immemorial it has been employed in the arts for the fabrication of a great variety of machinery. Berzelius has asserted that the degree of civilisation of a people might be appreciated by the progress they had made in their iron works. In a state of nature, iron presents itself under several conditions. It comes in its native state, in a state of oxyde, in combination with simple bodies, and in the form of salts.”

Passing over the account of the several descriptions of iron, with the method of smelting the metal, we arrive at its physical and chemical properties; beyond which we come to the—

“*Iron of Commerce.*—This, to serve for making horse-shoes, ought to be of fine and brilliant grain. In its *facture* good iron presents a twisted and brilliant fibre. Tempering gives it a more decided grain. Iron is distinguishable generally into *strong iron bars* and *blistered iron bars*: the former permitting being forged and turned either cold or hot; while the latter breaks if hammered cold, or even at a very elevated temperature. Strong iron bars admit of being easily forged. Cut cold, this iron scales or shows its fibres. It admits of being bent backward and forward without breaking, whether it be hot or cold, and readily yields to the hammer. It is affected but tardily by the action of humidity, and is but little liable to rust. There is a variety of strong iron they call *hard iron*, which is more strongly grained, but is without fibres or parallel plates. Sometimes the strong iron bars are *flawy* (*pailleux*;) they exhibit brown spots, which are said to be flaws, resulting from the interposition of scoria or oxyde of iron. This appearance is detrimental to the good qualities of the iron, and makes it more difficult to forge.”

The remainder of this chapter is filled with descriptions of the blistered and other kinds of iron, with the smelting of the iron mineral, and of steel and its application to horse-shoes. Then we come to that treating on the forging of the shoes; succeeding which comes the description of the shoe itself, (chap. ix,) out of which, that we may make our reader acquainted with what the French shoe is, we shall make a few extracts.

“The shoe presents several parts to which we give the name of *regions*: these are, 1, (*la pince*) THE TOE; 2, (*les mamelles*) THE PROMINENCES; 3, (*les quartiers*) THE QUARTERS; 4, (*les éponges*) THE HEELS; 5, (*les faces*) THE SURFACES, two in number, *superior* and *inferior*—the former applied to the inferior border of the wall, whose contour it follows; the latter being the part opposed to the ground; 6, THE BRANCHES, or sides, distinguished into *external* and *internal*; 7, THE BORDERS or margins—the curve of the shoe, inside, opposed to the toe, taking the name of (*voûte*) ARCH; 8, THE EXTREMITIES are—one *anterior*, comprehending the toe, and one *posterior*, divided into two parts, forming the heels. By the *thickness* we mean the distance between the superior and inferior surfaces. The largeness of a shoe from one border to another constitutes its (*couverture*) COVER. We call the cavities for receiving the heads of the nails (*les étampures*) THE STAMPS; and the holes, into which they lead for the neck of the nail (*les contre percures*) THE COUNTER-HOLES. APPENDICES of shoes constitute turnings-up, calkins, &c.”

The above forms a descriptive picture of a horse-shoe such as we are not in this country given to study with that minuteness of detail, in all its parts, in which our French author has represented it. Nevertheless, on particular occasions and cases such minutiae will be found to have their utility, and for strict correctness certainly surpasses the comparatively superficial descriptions we are too apt to be content with ourselves.

THE FRENCH HORSE-SHOE is quite a plain one. In the fabrication of their shoes, unlike ourselves, they appear to have few or no fancies or vagaries. It is of the ordinary ovoid shape, of the same thickness in every part except at the heels, which are diminished to one half the substance; with the nails, four on each side, placed at equal distances from one another, without much regard to their proximity to the heels. In the hind shoe the two toe-nails are farther apart, and its substance, which is greatest at the toe, gradually diminishes towards the heels. It commonly has a clip at the toe, a calkin at the outside heel, and a thickening (*mouche*) at the inside, which is the narrower one.

Bourgelat, and after him Lafosse and Gohier, introduced

systems of "Proportions of Horse-shoes," by which, in the words of Bourgelat, is meant to be determined—

"The relative proportions in the construction of the several parts of the shoe; since upon the exact execution of the work absolutely depends the position the shoe takes upon the ground, the position in which it sets upon the foot, as well as that of the *aplomb*, the direction given to the limbs of the animal, and, in fact, every other advantage derivable from shoeing."\*

"We derive, as a primitive principle from this, that it is proper to make the shoe for the hoof, and not to adjust, by paring away, the hoof for the shoe."

"Lafosse rejected these 'proportions,' and advocated the *fer à croissant*, which is either our *tip* or our *three-quarter* shoe, for the reception of the heels of which, thinned off, they cut a sort of notch in the crust; the principal end of this shoe being freedom for the elasticity of the foot."

In Chapter XI we meet with the important subject of *l'ajusture du fer*, the adjustment of the shoe (to the foot), consisting in rendering it suitable or comfortable (*convenable*) to the horse. M. Renault has observed that, in a state of nature, the toe of the foot is slightly incurvated or turned up; without doubt, Rey adds, that the animal may be less liable to hit his toe. For our own part,—indeed we might say on the part of our nation,—we are at issue with the French on this point. In the first place, we deny that the turned-up toe is *natural* either to the hoof or to the coffin-bone; and, in the second, we do not believe that it *always* facilitates action. Indeed, so far from it, there is one situation in which this decurtation of toe plainly robs the foot of the point of a lever most serviceable to the horse; since everybody has observed the digging of the toe of the fore-foot into the ground which takes place at the time a horse is dragging a heavy load up hill. Still, there are arguments—independent of *l'ajusture*—which seem to tell in favour of this sloping toe. The old shoe, from the *wear* it has had, slopes off in this way. So do our own shoes, albeit our feet do not slope upward, but rather downward. It is well known that men, accustomed to go barefoot, can run faster without than with

\* Bourgelat; *Essai sur la Ferrure*, 1843, p. 55.

shoes; which, in our opinion, proceeds not merely from any cumbrance of weight of the shoes (for they might be made exceeding light), but from the deprivation of the grasp or clutch which the naked down-curved toes have upon the ground; and we contend that the toe of the hoof of the horse, inflexible as it is, has still some such hold upon the ground, which, by the *ajusture*, it is deprived of. M. Rey thinks that our foot lamenesses—*navicularthrititis*—scarcely known among them, as well as sprains of synovial sheaths and alterations of tendons, are all referable, among us, to the want of *ajusture*; we, however, can find other causes for this alleged freedom from lameness of their horses. In fine, taking all things into consideration, we cannot bring ourselves to believe, that, so far from advantage resulting, they do not entail disadvantages on the shoeing by rasping off the toe of the hoof.

In the same chapter we have “A Description of the Instruments used in Shoeing, and of the Nails,” respecting which we may remark, that the French continue the use of the *butteris* to the exclusion of the drawing-knife; and farther, that they employ *rose-headed* nails. In fact, in this respect, their usage is precisely what ours was, pretty universally, fifty years ago; and such as, perhaps, it may still be found to be in some of the most remote and uncivilised parts of Britain.

The chapter following the foregoing (XII) is devoted to the “Act of Shoeing the Healthy Foot,” in which we may simply notice a fact—well known by all who have visited France—that the pulling-off and putting-on of the shoe employs *two* men: one, the assistant, holding the horse’s foot; while the other, *le maréchal*, operates on the foot. Our practice, compared with this, shows theirs not only to be awkward and clumsy, but that two men are employed to do work which, after all, is better executed by one.

In regard to *hot and cold shoeing* (*la ferrure à chaud et la ferrure à froid*), which forms the subject of Chapter XIII, we may refer our reader for an account of the two processes to ‘THE VETERINARIAN,’ vol. XXIII, p 590, wherein he will likewise find described their comparative advantages and disadvantages.



Chapter XV discusses points of considerable interest to us, "The Absolute Necessity or indispensableness of Horse-shoes; their evils; means proposed to remedy them."

"Among those who have rendered themselves conspicuous by denying the advantages derived from shoeing, we may mention Professor Grogner. Speaking of the origin of shoeing, he says: 'We cannot give the precise epoch of the invention of nail shoes; but everything conspires to the belief that it was at the time that sciences, letters and arts, became extinct in Europe. And of such an epoch it is a worthy product.' The same author adds: 'Luxury rather than necessity has given rise to shoeing. If shoes had been necessary for quadrupeds, Nature would have caused them to be born shod; weakness of hoof, and deformities and diseases which disfigure it, are nothing more than products of a practice fitted only to protect a delicate organ.' M. Rey winds up his observations on this score by saying: "For our own part, we regard the application of a shoe to the foot as the only means to protect the hoof, and render the horse serviceable to us."

In our eyes the matter amounts to this: firstly, that the horse in our pasturages is not furnished, by Nature with a hoof of the same strength as, ranging in his wild state, he would be found at adult age to possess; and, secondly, that even had he such a hoof as Nature in his wilds would provide him with, it neither would nor could stand battering upon such artificial roads as we have constructed for him to travel upon.

ON THE CHANGES PRODUCED BY SHOEING IN THE FORM OF THE HORSE'S FOOT, the name of Bracy Clark stands pre-eminent as an authority. We are all of us acquainted with the famous experiment he made, running on to a period of five years; we also know the conclusions he was led, at the expiration of the interesting period, to come to. Touching these, M. Rey observes:

"These experiments, interesting as they are, do not appear to us conclusive. They were made with English shoeing. They require to be repeated on several horses. And, moreover, it becomes necessary to compare the impressions made upon unshod feet submitted to similar treatment."

M. Godwin, in his '*Guide du Vétérinaire et du Maréchal*,'

refuses to admit the evils cast upon shoeing by Bracy Clark. "If," says he, "as Clark pretends, the shoe and the nails hinder the natural expansion of the hoof, and are the source of so much disease, I would ask him how it happens that the hind feet become exempt, since the shoes and nails are operating upon them too, and perhaps in a greater degree?"

The reply to the above question, put to Clark, is, that, in the first place, the hind feet do not receive the concussion the fore feet are constantly subjected to; and, in the second, that the force with which the former strike and impress the ground is great enough to counteract and overcome any restriction to expansion the shoe and nails may exert. These causes—the absence of one and the presence of the other—operate so beneficially for the hind feet that it is notorious we rarely look for disease in them; indeed, we may say, never, for either navicularthrititis or contraction. In fact, as is well observed, in conclusion, by Rey, people exaggerate the effects of shoeing while they forget to reckon the mischief the foot sustains from use different from its natural usages.

*(To be continued.)*

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## Foreign Department.

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### OBSERVATIONS ON SCROFULOUS DISEASE IN PIGS.

By M. CAUVET, VETERINARY SURGEON, AT NARBONNE.

THE pig, at a young age, and under the influence of certain morbid causes, is liable to a disease characterised by the effusion of tuberculous matter into different parts of the organism, with profound alterations in the osseous system. Often several organic systems are attacked at once. In every case, the seat of the disease appears to be owing to modifications of perverted vitality.

The disease affects young pigs only, and it is especially after weaning, and at the time they change their regimen that it becomes developed in a more appreciable form, and manifests more rapid progress. In every litter the sow has, generally there will be one or more young ones less developed than the others, as though they inherited debility at birth. These, although they may at first thrive and grow like the others, so long as circumstances prove favorable, yet oftener

evinced signs of delicacy, as though they carried along with them the marks of precocious dissolution. These are commonly the first attacked, though the disease is not confined to them, but sometimes affects pigs having every appearance of vigorous health. Seldom do pigs die from the affection during their sucking season. They may possibly show signs of sickness, or may die of the cold, &c., but scrofulous disease has a certain stage to go through, nor can it so early manifest itself in any very active form.

Conformation will indicate predisposition. The most weakly subjects, whose chests are narrow, are the most likely to have it. Symptoms of debility are seen in such: they carry the head low, have a sorrowful aspect, and a tardy walk; they are inattentive to what is passing around them, run slowly, and seek warm or sheltered places. When lying in the sun, they are not stretched out in the voluptuous manner in which the others are; while their skin, which is full of cracks, sticks close to their attenuated bodies, and is covered with lice, which seem to have a predisposition for the sick. A feeble cough is heard; the nose is dry and rugose. Soon, the appetite fails, the tongue proves dry, and the excretions become either hard or diarrhœa-like. The sick are often found standing up in the middle of a herd, seldom move out of their place, and daily cough with fuller note. The respiration also becomes disturbed.

The appetite grows worse and worse, and drinking but little, they remain with their lips in the water without swallowing any. The loss of flesh continues, the cough grows more frequent and feeble, the walk unsteady, until at last appetite fails altogether. The sick remain lying down, and while down die under extreme debility.

During or before those symptoms take place, we discover morbid swellings in the bones of the limbs, more particularly in the vicinity of the joints. The spongiöse tissue becomes lardaceous, and the limb assumes an exaggerated and deformed development. Sometimes, these are the earliest signs of the disease, and the pig that has them never grows and thrives like the others.

This pathological development of the bones, this *spongiöse*, as Lobstein calls it, is not confined to the limbs, it has been observed on the face; still, it is the same phenomenon. Sometimes, the inguinal glands are swollen and painful.

Death does not always result from the increase of the disease. Inter-current affections come on, and particularly those accompanied by debility; some assuming the aspect of turn-about in sheep, others of lumbar paralysis. Sometimes

we meet with retroversion of the rectum, of which the reduction is difficult, and the amputation fatal.

The pathognomonic signs of the disease have their origin in profound debility—signs furnished by the respiration and cough, followed by swelling of the ends of the bones, and certain other parts of the skeleton, with spreading lardaceous tissue around the diseased bones. With pigs of a certain race, we find taking place, some time after their weaning, tumour between the loins, which, at first hard and circumscribed, then becomes loose and rather painful, and in the end grows soft and fluctuating, and requires being opened, when pus springs out of it. I do not remember an instance of its becoming indurated. Thus happens it in vigorous subjects. In those not so, suppuration takes up longer time, and when it does take place, a milky serosity is let out, seeming to be the same pathogenic act as tuberculous matter is. It is rare, however, that such as have swellings of the bones produce the inter-maxillary tumour.

*Pathological Anatomy.*—Tuberculous matter is spread about in divers parts; generally the lung is its maximum seat. When diseased subjects are not slaughtered, but allowed to die, we find within the pulmonary parenchyma tubercles of a dry aspect, as though the fatty matter which appertains to such productions had been partially re-absorbed; so that one would almost look upon them as made up of softened calcareous earths. The vascularity of the parenchyma is not augmented around the tubercles, and it is rare we find the tubercles softened. The same lesions are found elsewhere. Tuberculous matter is found in the spleen, the liver, the kidneys, the pericardium, the membranes of the brain, the lymphatic glands, the peritoneum. Tuberculous matter never follows the formation of hydatids; though I have often seen the latter in sheep who have died of a watery cachexia.

In young pigs having symptoms of turn-about, cerebral hydatids are found, but smaller than those in sheep; they are lodged in the interior membranes, within the brain itself.

In scrofulous subjects, the osseous system is one of the first to feel the influence of the pathological irradiation. At first, a dull pain, increased by pressure upon the place where alteration happens. The bone tardily swells, and its swelling may turn out considerable; the favorite seat of disease being the carpal and tarsal joints. The periosteum participates in the disease, though it is not limited to the shell of the bone; in fact, it is difficult to say, which is the first affected, the periosteum or the bone.



The cellular tissue becomes infiltrated, and the infiltration solidifies and grows hard, and passes into the lardaceous state, having its ordinary characters. This is not inevitable; though it is rare to find the skeleton diseased without the tissue in some part partaking of it.

*Causes and Nature of the Disease.*—To produce and maintain parallel effects on a great number of individuals, causes must exist which have no gregarious or limited action. Among the number, one of the most powerful is consanguinity; then come alimentation and the atmospheric influences. It seems that pigs are more subject to the first (consanguinity).

When first we introduce a new breed, the offspring are produced at first under ordinary fecundity, having all the form and vigour of the race; but should we neglect to procure fresh males, either of the same or another breed, the progeny, breeding in and in, will soon become examples of the ill-result of consanguinity. First, we remark that the female who used to have ten at a litter, produces now but two or three. These may still be robust enough; but should the warning not be taken by the breeder, and he goes on to practice in this consanguinity, the young will be born, not only in small litters, but be found slight and rickety, and tardy and unhealthy in their growth; and should not great attention and choice feeding have the effect of correcting this, tubercles will soon manifest themselves, and death become premature. After this manner (of consanguinity) will the finest males and the most healthy females produce naught save very scanty litters, and scrofulous young. Introduce, however, a male, not near so fine, but of a different breed, the same females who had had no more than three at a litter, and those rickety, will have ten at a time, which afford evident traces of the father in their form and character, and skin, &c., so quickly does consanguinity manifest its effects, so quickly does the introduction of strange blood produce its vivifying influence. And with such males as have become nearly infecund, begetting produce doomed to die early, place only females derived from crosses, and they will get a numerous and vigorous progeny.

It was from observation of these facts that I perceived how necessary it was, before fresh blood was introduced into a locality, to ascertain if the breed could maintain its purity and durability under the influences acting upon it. Breeders are struck with the external characters of the breed, with the beauty of the produce, and they desire to make this their stock. So long as they suck their mother, the produce are fine; but once weaned, unless by feeding and well-looking

after, the skin maintains the conditions under which they have been produced, and which preserve the purity of the breed, the offspring rapidly degenerate, and we find nothing but castaways without number. There came, on speculation, an English boar (from Yorkshire) remarkable for his beauty and breadth of shape; but this boar, such are the types of the different breeds which come to us from England, was made up of continued forcing, all directed to one rational end. Types such as this are all artificial, not excepting even the thorough-bred horse, and when the hand of man can no longer, by this type, fashion the progeny, the product is bastardized, its valuable characters diminish, and external influences once more prevail.

I was saying, then, that there was a Yorkshire boar of great beauty, which, coupled with the females of the farm, produced a numerous progeny, much resembling himself in their beautiful make and other properties. The sows brought these well up to the period of their being weaned; but these pigs, though much stronger than other pigs which had issued from crossing the farm-house sows with strange boars, even of a common breed, when they came to be turned out in the fields to get their own living, died off rapidly, while the others thrived and grew well. Still, if these were well fed and looked after, they would thrive and do as well as their parents have done.

*Alimentation.*—Of whatever kind food may be, unless it contain fibrine, albumen, and caseine, it is not alimentary. Milk contains caseine, one of the reparatory principles. Caseine, fibrine, and albumen are, on isomeric principles, transformable one into the other. So great is the power of the organism that the young subject will transform the caseine he receives into the albumen and fibrine necessary for the blood, the muscles, &c.

During lactation, therefore, nutrition is simple enough, but afterwards it becomes changed. Health which had been flourishing during the time of lactation, sank under the weaning process; and yet these young subjects ate a sufficiency of food. One cause of this falling off seeming to me to be the chemical composition of the meal they consumed, which, on being analysed, yielded, along with abundance of azote, in 1000 parts, 27·88 of vegetable, along with a proportion of gluten of 29·32; besides starch, salts of potash, and lime, soda and magnesia, abundance of fatty oil (112·68) with mucilage and debris *de la coque* 443·82. These *debris de coques* probably consist chiefly of *silica*.

From this important analysis, linseed is found to contain

the requisite principles for nutrition; but these principles, surrounded by abundance of mucilage and fatty oil, require for their organs to be endowed with necessary power. The mother has this power in the required degree; the males likewise. The mother yields the same principles in her milk to her young; but then they are rendered capable of easy absorption. The young pig sinks then under such alimentation as requires a certain vital force for its digestion, an energy the young yet awhile does not possess; so that the linseed, which was good food for the mother, becomes improper for the young animal.

Linseed cake, when kept in a dark humid situation, generates within it a sort of *fungus* (byssus), which may add somewhat to its unwholesome effect. They are readily detectable through the microscope. Neither is there wanting in these cakes salts of potash, soda, lime, and magnesia, which may serve as excitants, and to repair in the organism salts of the same base eliminated by the secretions. Nor are they defective in the essential principles of nutrition, and rapid fattening; all the objection to them consists in young pigs lacking the power of isolating the essential principles, and separating them from such as are inert.

At the time we are feeding with linseed cake, we may give a portion of undecorticated rice grains, and other parasitic grains as well. On adult hogs rice does not appear to have very much influence, but on young pigs we have seen dropsy of the sheath under its use. It would be difficult to say this was the cause of it, though we have seen it appear with the rice, and disappear when such was not used. However this may be, chemical analysis proves that rice is capable of promoting fattening, on account of the abundance of carbon within its fecula, but that it does not nourish.

Often do we observe that impure air, sedentary life, and privation of the sun's rays, give rise to scrofulous disease. This is especially seen in the human subject, and in spite of healthful diet.

The period at which females are put to the male is not without importance in the present inquiry. In the quarter where I have observed the scrofulous disease, the sow has been put to hog about June, parturition has taken place in October, and weaning in November or December. The pigs separated from their mother, exposed to humid cold, and badly sheltered, straying away to seek in vain over marshy plains nourishment which they do not find, and so, lacking organic power, sink at this early age. Not able to resist the powerful causes of destruction, they become attacked with

frequent bronchitis, rheumatic pains, &c., all which causes of suffering act as proximate, or remote causes in determining the approach of scrofulous disease, or should it exist already, in hastening its progress. The neighbourhood of marshy puddles, or ponds, has likewise an influence, and especially when pigs are turned out on them in cold weather, fasting, to seek their living.

An adult hog who had acquired strength and vital existence, whose lungs readily burnt the carbon of the blood, did not die. What then do we see in the midst of these causes? A sow who has ten pigs at a farrow, connects herself in the course of consanguinity, and her farrow now becomes reduced to three or four, and so in place of being strong and vigorous, we behold them weak and rickety. They remain low in condition, and carry in themselves the seeds of a premature death. When we come to wean them, we find that their organs are not capable of extracting nutritive principles; hence the cold affects them, and they generate phlegmatics.

The blood is altered in its course, and the particles which it exhales for the purpose of nutrition, are changed. Instead of nourishing organs, they accumulate, and cause degeneration. This is the phenomenon which gives rise to tubercles and other heterologous tissues, whose presence constitutes scrofulous disease.

*Treatment.*—We can understand, when animals become attacked in numbers with this disease, that individual treatment becomes impracticable. We must, then, apply to measures which resist and extinguish causes.

We must, by constant renewal of males, prevent the establishment of consanguinity, and by this means preserve to the progeny the primitive vigour of the breed. Experience shows to what extent this renewal is salutary. Again, we must put the sow to hog at a suitable season of the year, in order that the bringing forth, and weaning processes may fall in good time. Sows, having two farrows annually, ought to be fecundated about the months of April and October; and the young should not be taken from their mothers until two months are completed. Indeed, at a certain period, when they come to have got strength enough, the mother often drives them away from her; but such as are feeble and rickety may be left still with her: not that they thrive any more for this; they still remain, in spite of it, small and poor. It is better to put such pigs away by themselves, and bestow upon them especial care, particularly in regard to their feeding: in this way, sometimes it happens that they take to thrive.



Any one food, persevered in without change or mixture, is contrary to the maintenance of health. It is a truth too notorious among physiologists to need being insisted on. Linseed may suit pigs at a certain age—sows who are able to extract the nutritious fluid from it. But, after weaning, in spite of the large proportion of azotic principle in linseed, the stomach of the young pig is unable to extract but very incompletely the assimilant principles which are buried in the midst of abundant mucilage.

Thus humid cold is a potent cause of disease. In the season of great cold we should keep the young pigs shut up in some warm and well-ventilated place. They ought to have abundance of dry litter. But, if we manage to have some pigging at one season rather than at another, the wet and cold will not be so much to be feared; for then the weaning will take place before the bad days of winter set in, and, when such days come, the organism of the young subject will have acquired strength enough inwardly, with sufficient power of resistance.—*Journal des Veterinaires, Toulouse, 2e serie, tom. iii, 1850.*

## Home Department.

### PRESENTATION OF A TESTIMONIAL

TO

### PROFESSOR MORTON,

BY THE STUDENTS OF THE ROYAL VETERINARY COLLEGE.

A Meeting of the Students of the Royal Veterinary College, was held in the Theatre of that Institution, on Saturday, April 16, 1853, at which all the Teachers were present by invitation.

Mr. T. O. DUDFIELD, in the Chair.

On the table were placed a handsome China vase, massively mounted in ormolu, with a pair of candelabra to match, and a pair of richly ornamented silver covers.

By the request of the Chairman, the following Resolution was read by the Honorary-Secretary, Mr. W. Partridge:—

“At a Meeting held by the Students, in the Theatre of the College, October the 30th, 1852, the following Resolution was unanimously carried,

“That the talents, industry, and personal kindness of

Professor Morton, are deeply felt and appreciated by the Students; and that, to evince the gratitude and esteem excited by his labours in their behalf, steps be immediately taken to present to him an appropriate testimonial."

The CHAIRMAN then said,—Gentlemen, the resolution which has just been read, informs us of the cause for which we are assembled here this evening. In it also, very properly, allusion is made to the nature of the feelings which have actuated us in our proceedings. The sentiments which influenced our minds were such as are excited only by long-continued and unostentatious kindness and good-will, and by the remembrance of personal advantages, such as are derived from the labours of one man for others' benefit. The heart of that man must indeed be cold who does not feel grateful for kindness; who does not long to evince by his actions, as well as by his words, the gratitude inspired by the sacrifices another has made for his sake. One of our greatest authors has admirably expressed these sentiments, when he says:—"There is not a more pleasing exercise of the mind than gratitude. It is accompanied with such an inward satisfaction, that the duty is sufficiently rewarded by the performance. It is not like the practice of many other virtues, difficult and painful, but is attended with so much pleasure, that were there no positive command which enjoined it, nor any recompense laid up for it hereafter, a generous mind would indulge in it for the natural gratification that accompanies it." Yes, gentlemen, gratitude is an inherent impulse of a generous mind, one of the purest which influences man, and he who is so influenced, feels no greater pleasure than in acknowledging his high appreciation of it by returning kindness with esteem. I scarcely need ask you, has Professor Morton's professional career,—has his personal kindness towards us individually, been such as to merit the association of such sentiments with his name? In your presence, and in this, I may say, beautiful present, I find my answer! We are students; our esteemed visitor is a teacher. It is not to be supposed that we are capable of estimating, at their true worth, his talents in that capacity; therefore it is that this testimonial assumes the character of a mark of gratitude, rather than one in admiration of his great professional abilities. It is a tangible expression of the deep sense we entertain of his personal kindness towards us; his unwearied assiduity, and his earnest labours in our behalf. The influence of such feelings as these alone would extract so unanimous an acknowledgment from a class of nearly one hundred students.

But, though these were the predominating sentiments, we further felt that Professor Morton richly deserves this token of our regard for the services he has rendered to the profession; and that he does, I shall now endeavour, very briefly to prove. The chair he has so long occupied in this Institution, you know, is that of Medical Chemistry and *Materia Medica*. He is the first person who has lectured on Chemistry within these walls; and not only the first who has lectured on Veterinary *Materia Medica*, but, as regards Great Britain at least, he may almost be considered the founder, the originator of that important division of science; and fortunate indeed are we in having him for our guide in this section of our studies. Professor Morton received his appointment as a lecturer within the College, in November, 1839; but you must not suppose that his labours in behalf of Veterinary pupils commenced then; far from it. His anxiety for their welfare; his desire for the advancement of the profession, led him to deliver a course of lectures yearly, from a period dating more than a quarter of a century back from the present time. I might occupy much of your time by expatiating on the importance of chemistry to the physiologist, and to the pathologist; but I abstain from more than a passing allusion to it. We hear, in this theatre, repeated illustrations from the lips of our preceptors; and after what has been impressed upon you so frequently in the course of chemical lectures delivered during the earlier part of the current session, it may be considered almost supererogatory in me to speak of the value of this science; not only as being essential to the proper study of *Materia Medica*, by making us acquainted with the nature of the compounds employed in the treatment of disease; but also as an admirable and beautiful exercise for the cultivation of the mental faculties. Viewed in the latter light, if perseveringly studied, by increasing knowledge, and by nerving the powers of the mind, it tends, gradually but certainly, to worldly advancement, whilst it engenders inward satisfaction and confidence. I know not in what terms to speak of Chemistry in reference to *Materia Medica*. What, indeed, would *Materia Medica* be without it? Why, it would be what it was before it had its foundation in the principles of that science! It would be, to a very great extent, empiricism, and mere chance work! We need, indeed, but to look at the formulæ in old books to convince ourselves of this. Not only do many of them appear supremely ridiculous, from the number and remarkable character of their constituents; but they are, not unfrequently, absolutely prejudicial. We find substances jumbled

together, which the slightest consideration shows to be incompatible, hence mutual decomposition ensues, and the result, in no few instances, is the production of new compounds, which, if not baneful, are at least inert, and consequently useless. Surely, if medicines are of use in the treatment of disease, those who employ them should be acquainted with the laws of combination, otherwise the patient may sustain irremediable injury! So much then for the importance of Chemistry as applied to *Materia Medica*. There have been, nay, there are still some persons who denounce these studies; and who say they are of no use to the Veterinary Surgeon. It would be idle to more than thus allude to such objectors. Allow me to remark, that we do not hear any one speak in these terms who is at all conversant with the sciences he affects to contemn; and of this we may be sure, that the rank we shall hold in society will mainly depend upon our scientific acquirements.

For the reasons I have advanced, lectures on Chemistry precede, in point of time, those on *Materia Medica*. The labours of Professor Morton in this field are beyond our praise; moreover, they are appreciated by the profession. To adopt the language of one now present (Professor Spooner) we may say, "What Veterinary *Materia Medica* was before Mr. Morton touched it, and what it is now, are two very different things." As to its present state I need say nothing. We have not yet heard the last of the Professor's valuable lectures on the subject. What it was you may best learn by consulting the older authors. When we ponder upon its ancient degradation, we can readily believe that Professor Morton has experienced great difficulties in bringing this division of science to its present position. Probably all present possess his "*Manual of Pharmacy*,"—a book written for students, and in fulfilment of a promise made to students. It is a work of a highly scientific and most useful character, and upon it, in great part, the reputation of the Professor depends, as it embraces the summary of his most important labours. Its worth is also attested by its extensive circulation. It has been graphically styled "a little book, a great good." But to continue: Veterinary Toxicology has received exposition from Mr. Morton's pen. The admirable chart he has drawn up, illustrative of that subject, evidences much research, and affords considerable assistance both to the student and the practitioner. Most of you are aware that he is likewise the author of an elegant monograph on the formation of calculous concretions in our domesticated animals. As one of the founders of the Veterinary Medical



Association, he is also entitled to our gratitude. At its meetings much valuable information relative to his department has been made public, of which we now reap the advantage. The correct manner in which he edited the publication in connection with that society further commands our admiration. But it is needless to cite other illustrations. I could easily do so; but I must not detain you any longer. The review I have taken of the Professor's career is of necessity very imperfect; yet I think I have adduced sufficient to substantiate my assertion—that our honoured visitor merited this testimonial, not less for his services in the cause of the profession than for his personal kindness towards us. I will therefore at once proceed to acquit myself of the duty your kindness has imposed upon me. This beautiful vase bears the following appropriate inscription:—"Presented, with other articles of *virtu*, by the Students of the ROYAL VETERINARY COLLEGE, to W. J. T. MORTON, ESQUIRE, Professor of Medical Chemistry and Materia Medica in that Institution, a Tribute of Esteem and Gratitude, equally in acknowledgment of his ASSIDUITIES AS A TEACHER and his kindness as a friend. Session 1852-3." To you, Professor Morton, I have the distinguished honour of conveying with this gift the verbal expression of the grateful feelings the students as a body entertain towards you; and allow me, Sir, to congratulate you in having earned for yourself such a position in their esteem. In desiring your acceptance of this tribute of our regard, permit me to express my sincere wish,—and in this also I know I am joined by all present,—that you may long live to occupy your present position; and I trust that, when the infirmities naturally attendant upon senility disqualify you for the discharge of the obligations of a teacher, you may retire, with the consciousness of having fulfilled your every duty, to enjoy what, in your case, after the labours you have sustained, and the difficulties your diligence has overcome, may be emphatically designated dignified ease!

Mr. MORTON spoke in reply nearly as follows:—Friends and Gentlemen,—I accept with unfeigned gratitude this proof of your esteem and kindness. With Shakespeare I am disposed to say,

"Now my bosom's lord sits lightly on its throne;"

but that I am altogether unable to give expression to the feelings with which it is pervaded. Thus your munificence has made me so poor that even in words I cannot thank you as I ought. I will not, however, withhold from you the fact

that I have long wished for some such *general* expression of your sentiments towards me; for, rich as I am in testimonials received from the students,—few teachers, I believe, richer,—and of them I am justly proud, this is the first I have had presented to me by the pupils as a body. It might naturally be asked, How is it, after, as we have just been told, you have been an instructor for more than a quarter of a century, this is the first time any public acknowledgment has been made to you? Is it the man or his subject that has not been duly estimated? I answer, that it is not the first is proved by what has been already stated. I believe the reasons are twofold: firstly, the many presents I have from time to time received have always been from by far the larger majority of the class, and thus the necessity was superseded; secondly, by some—perhaps too many for their own interests—my division of science has been held in low estimation. The cry has gone forth, “It can be done without: to be a Veterinary Surgeon it is not necessary to be a Chemist.” Fallacious reasoning! if reasoning it can be called. Such persons of course throw Chemistry aside as altogether worthless; others, finding it necessary to give it a place, and, representing science by the figure of a mighty pillar, compare Chemistry to the ornaments of the capital thereof. Both are equally in error, since it is a necessary, an integral part of your studies. Indeed, you cannot do without its aid. It blends itself intimately with physiology and pathology, and the practice of physic would be as a nullity—a mere peradventure—and perfectly inefficient without its principles. But “a change has come over the spirit of the dream,” and I rejoice to know it. You have formed yourselves into a class for mutual instruction in this division of science, and my weekly examinations, introduced for the first time this session, are exceedingly well attended, at which I am much pleased. All this augurs well.

This handsome present, I am informed, is awarded to me as the Professor of Medical Chemistry. It is true that to the consideration of the principles of Chemistry as applicable to Veterinary Medicine I have more immediately directed your attention, but not exclusively. I have diverged, as you know, from time to time, when any subject has been before me from which the phenomena of nature or the operations of art receive elucidation. Still there is one section to which as yet little attention has been paid by me. I allude to Chemistry as applied to Agriculture. And why do I advert to Agricultural Chemistry? Simply because your avocation in life calls you into intercourse oftentimes with the scientific

agriculturist, and you ought to be conversant with the laws that obtain here. Moreover, I have little doubt in my mind but that several diseases, which come under the notice of the Veterinary Surgeon, have their origin in the use of the many artificial manures now resorted to, either by their being taken in with the food, or by their inducing a luxuriant state of the vegetable; and I am borne out by no mean authority in this opinion—one amongst us, Professor Simonds. We must not, therefore, be contented with what we have already done, and not continue to go forward, since, at the present day, to stand still is to retrograde.

Your Chairman has spoken so ably of the advantages to be derived from Chemical Science, that I am not necessitated to occupy your time any longer on this head. He has also given you much of my history. How he picked it up I do not know; but it is very true, that soon after my appointment as an officer of this Institution, (which is now twenty-seven years ago,) I saw the necessity of Chemistry and Materia Medica being taught within its walls. For many years I was a private instructor, and some of these were passed in junction with your excellent teacher in Anatomy, Physiology, &c., Professor Spooner; but when the fitting time had arrived, I applied to the Governors of the College, who immediately, on my representing the advantages likely to accrue to the student, appointed me to the situation I have now the honour to fill. It is true, that I cannot say with Cæsar,

*“Veni, vidi, vici,”*

but I can say, that through the kind encouragement I have received, and that principally from students, I have been enabled to surmount all opposing difficulties, and, being content, am highly gratified by this your approval of my conduct hitherto. May it be my good fortune to continue to merit it! The inscription further designates me as the Student's “friend.” A proud distinction, and one I am solicitous ever to maintain. There might have been a time when it seemed that I could do more for the student than I do now; but this I can honestly say, never was my sincerity greater than it is, although my zeal may have apparently lessened in its earnestness.

But is there not another lesson taught by this magnificent present before me? What have we here? Copper and zinc, and tin, and silver, and clay—mere crude materials of the earth; yet the art of a cunning workman has fabricated them into things of usefulness and beauty, and

“a thing of beauty is a joy for ever.” So it is with instruction. It is possible to make the most uninviting subject interesting, and by arrangement, so to dispose of facts, that instead of their being a burthen to the mind, they become a source of continued pleasure and of profit. We should, therefore, endeavour to blend the “*utile cum dulce*” in our instructions.

We are told by the poet, that—

“Gifts are the beads of memory’s rosary,  
Whereon she reckons kind remembrances  
Of friends, and old affections.”

They are as bright oases in the desert, which cheer us in our onward course. They steal over the senses, entrancing us, like music from the calm and silvery lake at even tide, when all is still. They act as incentives to industry, while at the same time they afford that satisfaction to the mind,

“Which none but he that feels it knows.”

And if, in after years, should we have to contend with the frowns and storms of life, they say to the troubled waves thereof, “Peace, be still.”

It now only remains for me, Mr. Chairman, to thank you for the very handsome and courteous manner in which you have been pleased to convey to me the sentiments of your fellow students. To me it has been highly gratifying; and I am sure I speak only in consonance with their feelings, when I say, that in you they have found an admirable exponent.

The material elements of this splendid gift, however, may, nay must perish; but the ethereal elements of the friendship which called it forth are capable of everlasting duration, and the expressions of kindness with which its presentation has been accompanied, will afford solace in life’s latest hour, and, if it be possible, freshen in eternity. To all of you I wish happiness and prosperity; but remember, to be prosperous and happy you must deserve it. Labour then assiduously and honestly in your profession, and be assured you will reap the reward if you faint not. Many of you are about to make your exodus into life, and to some it may prove at best a chequered scene. May your guide and director be “the Pillar and the Cloud,” and may your safety and defence be “the munition of Rocks.” I can wish you no better wish than this.

Professor SEWELL said, he had accepted the invitation to the Meeting with much anticipated pleasure, which had been fully realized. Moreover it would afford him, as resident



Governor of the College, the highest gratification to be enabled to communicate to the Governors of the Institution, how much satisfaction their appointment of Mr. Morton as a teacher had given to the students. The handsome present before him was a proof of their judgment and good taste.

On the motion of Mr. LINES, seconded by Mr. MORTON, received and carried by acclamation, and responded to by Mr. PARTRIDGE,

The cordial thanks of the Students were awarded to the Committee, for the very efficient manner in which they had carried out their wishes. The Committee consisted of—

Thomas Orme Dudfield, *Chairman*.

George Poyser.

William Varley.

John Blunsom.

Paul Anthony.

John Garrad.

James Cleveland.

John Sant, *Treasurer*.

William Partridge, *Secretary*.

## HIGHLAND AND AGRICULTURAL SOCIETY.

(Continued from p. 233.)

Mr. F. DUN said,—I shall confine my observations for the present to some of the causes of influenza, and their mode of operation; and though this department of the subject is perhaps more difficult and obscure, and less interesting and practical than some others, still we may, I think, derive some profit from its study, by discovering those circumstances on which the severity of the disease, and the mortality attending it chiefly depend, and thus obtaining valuable indications for the efficient management of horses, both in health and disease. Influenza, like most other diseases, owes its development to the co-operation of two classes of causes—the exciting and the predisposing. The relative action of these two classes of causes has been already aptly and familiarly illustrated by Mr. Barlow. Concerning the exciting, real, or proximate cause or causes of influenza, we still know very little,—scarcely more, indeed, than the Italian physicians of the middle ages, who ascribed the malady to the influence of the stars. Since the time of this old doctrine, to which, by the way, the disease is said by some to owe its name, many hundreds of hypotheses have been advanced, many of them scarcely more definite or tenable. Influenza, in its epizootic form, attacks horses in almost all parts of the world, in every latitude and every climate, at all seasons of the year, in every sort of weather, and under all varieties of food, work, stabling, and general management. Its wide-spread occurrence in all circumstances, and its attacking in but slightly modified form all kinds of animals, show that it must be to some extent independent of species of animal, of country, climate, geological position, temperature, and management.

and point to its propagation by some common and wide-spread cause. Now, the only condition to which all influenza patients of every species, country, and time, have been alike exposed, is the breathing of the same atmosphere, and hence all investigators, from the earliest times, have sought in the atmosphere for the cause of influenza, and also, we may add, of all other epidemic and epizootic diseases. Before much was known of the atmosphere, it was thought that the salubrity of different localities depended on the amount of oxygen in the air of such localities, and that a high state of health and a large proportion of oxygen must ever coexist. But such opinions are now quite untenable, for it is well known that the composition of the air, as respects its proportion of oxygen, is fixed and unvarying in all localities, healthy or unhealthy. Disease has sometimes been ascribed to an undue accumulation in the air of the poisonous carbonic acid gas; but, unfortunately, for the credit of this opinion, no such accumulations of carbonic acid are ever found to prevail over any great extent of country, or to coexist with the occurrence of any epidemic or epizootic disease. Dr. Prout and others have believed influenza to depend on the presence in the air of sileniuretted hydrogen; but this gas, though acrid and irritating, is very easily decomposed by oxygen, and hence cannot exist free in the air, while the products of its decomposition are quite innocuous. It was, at one time, believed that various epidemic and epizootic diseases were capable of being produced by sulphuretted hydrogen—a theory first propounded by Professor Daniel, of King's College, London, as especially elucidating the development of the destructive fevers which occur on the African coasts. The insufficiency of this theory was but too well shown in the disastrous fate of the Niger expedition, which left this country in 1841, and which suffered most severely from fever, though special precautions had been made for purifying the air breathed by the crews, especially while below decks. Were sulphuretted hydrogen the active exciting cause of influenza or any other disease, we should certainly expect such disease to be especially prevalent among those most exposed to the breathing of the gas. Many chemists spend half their lives in an atmosphere containing it in quantities often large and unpleasantly sensible to those unaccustomed to the odours of a laboratory; and the people employed at gas manufactories, and in various sorts of chemical works, breathe it constantly, and often in considerable amount. Yet none of these persons are especially liable to influenza, but are, on the contrary, remarkably free from all kinds of illness; and hence, we are surely warranted in concluding that sulphuretted hydrogen cannot be the cause of influenza. Influenza, like various other diseases, has been ascribed to the undue quantity in the air of a peculiar principle called ozone, discovered by Professor Schönbein, and believed to be an allotropic modification of oxygen, an oxide of hydrogen, or, according to Mr. Stevenson Macadam, an oxide of nitrogen. But though there is little doubt that a substance such as ozone does exist in the air, there is no evidence to prove that its presence has anything to do with the production of influenza. On

the contrary, influenza is not produced by thunderstorms, or other electrical disturbances, during which ozone is abundantly evolved. Nor do influenzas, or other catarrhal affections, appear among those employed in working friction, or hydro-electric machines, even when these are of large size, and are worked for several days, with constant evolution of large quantities of ozone, distinctly perceptible to the nostrils. Indeed, ozone, so far from being a cause of disease, has been suggested by Dr. George Wilson as being a most valuable preventive of disease, as being, in fact, Nature's own disinfectant, which has kept the air pure, and, to a great extent, free from poisonous matters, for many thousands of years. The probability of this opinion is greatly strengthened by the fact that ozone has the power of destroying organic colouring matters, of arresting putrefaction, and of removing disagreeable effluvia—properties closely allied to those of disinfectants. But, independently altogether of what has been said, it appears highly improbable that influenza, or indeed any wide-spread disease, could be caused by sulphuretted hydrogen, ozone, or any gaseous substance whatever; for such gases would, in virtue of the law of gaseous diffusion, speedily become so diluted as to be quite innocuous, would be very apt to be altered in composition by the ordinary constituents of the atmosphere, would almost certainly be destroyed by the disinfectants in common use, and so far as they did spread, would spread regularly and equably. From this it will be obvious, that influenza cannot owe its development to any gaseous principle, for in its visitations, whether among men or beasts, it has propagated itself in all kinds of weather, and in spite of all sanatory precautions, and has often spread very irregularly and unequally, affecting sometimes the inhabitants of one side of a street, or one portion of a parish, and leaving other contiguous parts unaffected. Such phenomena appear quite inconsistent with the propagation of a disease depending on any substance in a gaseous form. But our atmosphere contains many other matters besides gases and inorganic substances. It wafts about many organic matters, derived from both plants and animals, usually in the state of a fine powder or pollen-like dust, and sometimes sensible to sight and smell. Much of this is of vegetable nature, but Ehrenberg has also shown the presence of animalcules. Dr. T. Thompson, in his '*Annals of Influenza*,' pp. 383-4, remarks: "Phenomena, having reference to disturbed conditions of vegetable or animal life, have been repeatedly recorded as occurring during influenza years, such, for example, as blights of particular trees, 'blood rain,' 'bloody snow,' plagues of mice, and remarkable flights of locusts, grasshoppers, and other insects. The prevalence or deficiency of particular tribes of insects in certain years, their sudden arrival or temporary disappearance in individual places, may hereafter be ascertained to hold relations with conditions tending to modify, in the aggregate, the vital energies of the human race. In attempting to trace the economy of nature, is it unreasonable to imagine that some fluctuations in the health of man, may have reference to disturbance in the proportions, or to changes in the condi-



tion of some despised and even invisible classes of the lower creation? Instances of such disturbance in the proportions of insect tribes have not been unfrequent, coincidentally with the spread of the influenza, and on many other occasions may have been easily overlooked. That remarkable coleopterous insect the *Bostrichus typographus*, abounded in 1665, 1757, 1763, and 1783. The *Arctia Phaeorrhœa* committed great ravages in 1731 and 1732. In the year 1782 the brown tail moth, that great devastator of our hawthorn hedges, occasioned so much alarm in the vicinity of the metropolis, that rewards were publicly offered for its destruction; and in October, 1836, vast flights of aphides darkened the air in our northern counties. We may just allude, also, to the unusual migrations from the continent, in the year 1847, of the cabbage butterfly, the bean aphid, and of lady-birds (*coccinellæ*), and also of the vanessa cardue flying over a district, in a column from ten to fifteen yards wide, for two hours successively." Besides Dr. T. Thompson, many other careful and scientific observers also speak favorably of this hypothesis, and connect the prevalence of influenza with these organic elements of the air. Such elements may suffer "modification more or less extensive in quantity or condition, under the influence of magnetical or other changes, which, by altering the relation of the atmosphere to living beings, may thus engender or diffuse some peculiar virus adequate to become a cause of disease." —(*Annals of Influenza*, p. 385.) In objection to this hypothesis it may be urged, that it affords only a very partial explanation of the disease, and that so long as we are ignorant of the means by which those organic grains are themselves produced, we are ignorant of the real ultimate cause of influenza. In favour of the hypothesis it must, however, be said that it explains more satisfactorily than any other yet advanced, the immediate cause of the disease, and the peculiarities of its propagation; and though there is, perhaps, scarcely sufficient positive evidence in its favour, there is, at all events, no positive evidence against it. It enables us to understand why the disease often travels with rapidity from place to place, attacking, within so short a time, so many victims; why it springs up at the same time in different localities, sometimes widely separate from each other, as was exemplified in the visitation of 1836, which occurred at the same time in London, and at Cape Town; why it is sometimes so irregular and erratic in its progress, leaving some individuals and some localities unaffected; why it appears to have many of the characters of contagious disorders, being carried about not only by the air, but by clothes; why it exhibits such disregard of external circumstances as climate and general management; and why it affects about the same time, not only the human subject, but horses and others of the lower animals. Further, such an hypothesis also affords an explanation of the phenomena of other wide-spread diseases which bear some analogy to influenza, as cholera, pleuro-pneumonia, and the various eruptive fevers. The correctness of this hypothesis is rendered much more probable by the fact that many kinds of organic matters, especially when in a



state of molecular disturbance or decay, produce serious derangement when introduced into the system. We cannot dismiss the exciting causes of influenza, without noticing the much-vexed question of contagion. Many facts are adduced in favour of the contagious nature of the disorder. It is said, for example, that it spreads chiefly to those places which have had communication with others previously invaded by the disease; that the crews of vessels at sea have remained free of it until they entered ports where it had already existed; that the epidemic of 1803 was introduced into Dublin by some packages of goods from an infected part of England. On the other hand, however, there is ample evidence to show that in many cases the disease does occur independently of contagion. Thus, it does not generally present itself in unusually large proportions among those persons or animals that have had most communication with those first affected. It often attacks one or two horses standing in different parts of a large stable without spreading to the others, and sometimes attacks only one animal of a team. It often springs up at the same time in several different places widely removed from each other. The epidemic of 1836 occurred at the same time in London and at Cape Town. In May, 1782, while influenza was prevailing in different parts of England, the late Admiral Kempenfelt's crew became affected by it after they had been nearly a month at sea, and at the same time Lord Howe's fleet, then cruising in the channel, was also affected.—(*Annals of Influenza*, op. cit.) But these statements, apparently so contradictory and inconsistent, may be to a great extent harmonised, if it be recollected that there is probably no distinct line of demarcation between contagious and non-contagious maladies, and that the same disease may be developed, sometimes through the intervention of contagion, and sometimes independently of it. Cholera in man, glanders in the horse, pleuro-pneumonia in cattle, and the eruptive fevers in all animals, afford good illustrations of this. The difference betwixt a disease being contagious and non-contagious merely resolves itself into a question as to the source of the disease-producing poison, which is derived in the former case from some concatenation of external circumstances generally obscure and unknown, and in the latter either directly or indirectly from the body of an animal already affected by the disease. Now, as respects influenza, the organic germs, which we shall for the present consider as the immediate cause of the disease, are in the great majority of cases produced by causes of which we as yet know nothing; but they may also, we think, be occasionally evolved from the bodies of animals affected by the disease. The exciting causes of influenza are often of themselves insufficient to induce the disease, and usually require the co-operation of certain conditions which are termed PREDISPOSING CAUSES. These owe their effects to their rendering the body unusually susceptible to the exciting causes of the disease. They prepare a fitting and congenial soil, as it were, into which the active exciting causes fix themselves, and they deserve our careful attention as being more

easily detected and avoided than the exciting causes of the malady. There are many circumstances which operate as predisposing causes to influenza. The most common and most active of these are insufficient ventilation, overcrowding, want of cleanliness, and defective drainage, to which alone we shall at present advert. INSUFFICIENT VENTILATION acts injuriously on all animals, by reducing their vigour and their disease-resisting powers. Unless the air in which animals have breathed for some time be frequently renewed, it becomes so altered as to be incapable of affording proper support to the vital functions. It contains an excess of carbonic acid and a deficiency of oxygen, and such a mixture cannot readily enter the lungs or displace the vitiated gases which are brought there for excretion, nor can it cause in those worn-out particles of the body the effectual oxidation essential to their speedy removal, and hence to the health of the animal. Indeed, when a confined portion of air contains even so little as 3 per cent. of carbonic acid formed at the expense of the oxygen, it speedily proves fatal both to man and the lower animals. But the air undergoes still further changes, unfitting it for the important purposes it has to serve. It becomes surcharged with moisture and unduly heated, and, from its expansion, each volume contains a less weight of oxygen. There is also present, in a state of incipient decomposition, a great excess of these organic matters which are being constantly given off in greater or less amount in the breath of all animals. Few things are more injurious to animal life than organic matters in a state of decomposition. Every one has heard of the serious consequences of wounds received while dissecting the human body, of the eating of sausages, oysters, or other food in a state of partial decay, and of the inhalation of gases evolved from putrifying matters, and these are but examples of what invariably occurs when organic matters in that state of molecular change which we recognise under the name of putrefaction find access to the blood. The amount of organic matters in this state given off by the lungs at each expiration is very inconsiderable in animals in good health; but we note its existence in the peculiar smell of the breath, and have often still further evidence of it in the odours which too often assail the nostrils on entering close ill-ventilated stables. These odours, we may be told, are only partially owing to this cause, consisting in great part of exhalations from the skin and urine, but such exhalations are of a similar kind, and have a similarly injurious effect. Further, an animal placed in a confined portion of air renders that air irrespirable, not only by pouring into it the effete matters from the lungs, but also by evolving similar products from the skin. By this channel the body during health and in a pure atmosphere gets rid of large quantities both of water and of carbonic acid. Lavoisier estimated that 15 grains of insensible perspiration are given off every minute from the skin of an averaged-sized man, and the quantity in the horse must be much greater. A large proportion of carbonic acid is also evolved and oxygen absorbed by the skin, and the vital importance of this function of the skin is

illustrated by the fact, that when cats or dogs are covered over with a varnish preventing cutaneous transpiration, they speedily die. In an impure air vitiated by exhalations from living beings, the process of respiration by both skin and lungs is carried on very imperfectly, sometimes, indeed, so much so, that life is destroyed, as is, unfortunately, too strikingly shown in the disaster of the Black Hole of Calcutta, the mortality of seventy persons on board the Irish steamer Londonderry, on 1st December, 1848, and many other cases. But even when not so great as to cause such disastrous consequences, the deficiency of fresh air is often adequate, slowly and insidiously, to produce a long catalogue of bad effects. It frequently induces a deteriorated and debilitated state of health, which becomes a fertile predisposing cause of many disorders, and interferes with the oxidation and removal of effete and poisonous matters which ought to be speedily excreted. In the human subject, it has long been known to increase materially the liability to epidemic disease, and this is illustrated by the high rates of mortality from cholera, typhus, and other such diseases among the inmates of many of our badly-regulated prisons and workhouses, among our troops while inhabiting certain barracks, and among the inhabitants of Iceland. Some curious facts bearing on this point have been recorded by Mr. Maclean, regarding the Island of St. Kilda, one of the Western Hebrides. In 1838, he found that four out of every five infants born in that island, died before the twelfth day of their existence from trismus nascentium. "The great, if not the only cause of this mortality," says Dr. Carpenter, "was the contamination of the atmosphere by the filth, amidst which the people lived. Their huts, like those of the Icelanders, were small, low-roofed, and without windows; and were used, during winter, as stores for the collection of manure, which was carefully laid out on the floor, and trodden under foot, to the depth of several feet. On the other hand, the clergyman, who lived exactly as did those around him, except as to the condition of his house, had brought up a family of four children in perfect health; whereas, according to the average mortality around him, at least three out of the four would have been dead within the first fortnight."—(*Principles of Human Physiology*, p. 555.) Among horses a defective supply of air will produce, as in man, a state of body unusually prone to suffer from influenza, and all epizootic and zymotic diseases. In such unfavorable circumstances, influenza will be of a severe and untoward form, accompanied by an unusual amount of typhoid fever, and apt to assume a contagious type. To avoid this, and all other diseases as much as possible, and to disarm them of their virulence, stables should be made lofty in the roof, and otherwise large and commodious, with facilities for the exit of heated and vitiated air, and for the entrance of cool and pure air, and with large windows, capable of admitting light. Provision should be made to allow each horse at least 4000 cubic feet of air, and this quantity will not be found too large, when it is recollected that the usual allowance for man is about 800 cubic feet, and that from the greater weight of his body,



and the greater capacity of his heart and lungs, the horse will require at least five times as much. As Mr. Barlow has already adverted at some length to the subject of overcrowding, I shall only remark concerning it that it appears to be injurious, chiefly by favouring the accumulation in the atmosphere of those emanations from living bodies, which, as already mentioned, appear to have a remarkably injurious effect on the general health. FILTH AND WANT OF CLEANLINESS are too much overlooked as causes of disease. They interfere much with the functions of the skin and lungs, and often contaminate the atmosphere with matters of a very virulent kind, capable of producing serious disease. Dr. Carpenter mentions a case which affords a good illustration of this. "A manufactory of artificial manure formerly existed immediately opposite Christchurch Workhouse, Spitalfields, which building was occupied by about 400 children, with a few adult paupers. Whenever the works were actively carried on, particularly when the wind blew in the direction of the house, there were produced numerous cases of fever, of an intractable and typhoid form; a typhoid tendency was also observed in measles, smallpox, and other infantile diseases, and for some time there prevailed a most unmanageable and fatal form of aphthæ of the mouth, ending in gangrene. From this last cause alone, 12 deaths took place among the infants in one quarter. In the month of December, 1848, when cholera had already occurred in the neighbourhood, 60 of the children in the workhouse were suddenly seized with violent diarrhœa in the early morning. The proprietor was compelled to close his establishment, and the children returned to their ordinary health. Five months afterwards the works were recommenced; in a day or two subsequently, the wind blowing from the manufactory, a most powerful stench pervaded the building. In the night following 45 of the boys, whose dormitories directly faced the manufactory, were again suddenly seized with severe diarrhœa; whilst the girls, whose dormitories were in a more distant part, and faced in a different direction, escaped. The manufactory having been again suppressed, there was no subsequent return of diarrhœa."—(*Principles of Human Physiology*, pp. 552-3.) DEFECTIVE DRAINAGE appears to owe its injurious effects on general health, and its special influence in predisposing the body to influenza, to its increasing the moisture of the air, lowering its temperature, and contaminating it with putrescent emanations. Close, damp, and hazy weather, sudden and excessive vicissitudes of temperature, particularly in spring or autumn, and long and harassing journeys, also appear especially apt to determine the production of influenza. But I must now bring these few and imperfect observations to a close, and shall only remark, in conclusion, that every agriculturist who desires to maintain his horses free from influenza, or indeed from any other disease, must endeavour to protect them from all health-depressing influences, must allow them abundance of pure fresh air, roomy, dry, comfortable, well-lighted stables, and sufficiency of good suitable food, and must



avoid exposing them to the evils of filth, bad drainage, or overwork. If this be done zealously and efficiently, he will find that he will have fewer cases of sickness, and that those cases which do occur will be simple and manageable.

After a few remarks from Professor Dick, who expressed his entire concurrence with the views of the speakers, whose papers had quite exhausted the subject—

The Chairman congratulated the meeting on the able and eloquent dissertations they had just heard. There was only one point which had been overlooked, and which he would venture to supply—whenever an animal has been taken sick, send for medical advice as soon as possible.

After a vote of thanks to the Chairman, the meeting separated.—*The North British Agriculturist*; Feb. 23, 1853.

### THE COLEMAN MEDAL.

*An Extract from the Will of the late Professor Coleman,  
dated July 1st, 1839.*

“Also, I give to the Royal Veterinary College, at the expiration of three years from my decease, the sum of one hundred and sixty-six pounds, thirteen shillings, and fourpence, Three per Cent. Consolidated Bank Annuities, with the dividends thereon accruing and to accrue, due at and from that time only, at and after my decease, for the purposes hereafter declared concerning the same; and I direct the same to be transferred at the time aforesaid into the name of the Trustees or other ostensible officer or officers of the said College for the time being, as the Trustees or Trustee for the time being thereof shall think proper; and the receipt of any Trustee or other ostensible officer of the said College, shall be a sufficient discharge to my representatives for the said legacy: And I direct the said legacy to the said College, to be paid wholly out of my chattel personal estate only, and no part to be payable out of the produce of my chattels real or real estate hereinafter appropriated to the payment of my debts and legacies: And I direct my real and personal estate to be so marshalled accordingly, that my said legacy to the said College may be so paid out of my said chattel personal estate only: And I direct the Governors for the time being of the said College to apply the said legacy to the said College for the purposes following (*i. e.*), to apply the interest and proceeds thereof annually, for ever, in the purchase of a Medal to be given annually to the author of the best dissertation on the Anatomy, Physiology, and Pathology of the Foot

of the Horse, or the Principles and Practice of Shoeing Horses, (to be decided by examiners, viz. either Veterinary examiners or Veterinary surgeons, to be appointed by the Governors at their annual meeting;) and if in any year or years no such dissertation as aforesaid should be offered, or, being offered, should not be decided by the examiners as worthy of such Medal as aforesaid, then and in such case the annual proceeds and interest of the said fund for the time being to be accumulated instead of being applied as aforesaid; and such accumulations, or any part thereof, as the Governors for the time being may think proper to be given to the author of a successful treatise for the time being on the subject aforesaid, in addition to the Medal aforesaid, or in a larger or more valuable Medal, to be purchased therewith by the said Governors, so that the income of the said fund may, in manner aforesaid, be applied for ever annually, or as often as the opportunity shall occur, in such testimony or reward for the production of such dissertation as aforesaid, and for which purpose the Governors will, I trust (but I impose no restriction on them), give such publicity to the same as shall lead to a good competition for so desirable an object. But if no such dissertation worthy, in the opinion of the said examiners, of any such reward as aforesaid, should be offered for seven years, then a Medal, to be purchased with the said accumulations, shall be offered for the best dissertation on any Veterinary subject thought worthy by the said examiners of such a reward, but at all times the Foot of the horse is to be the subject preferred, and next to that the nature, causes, and treatment of glanders and the diseases of the eye in horses. And if there should be no such successful dissertation at the end of seven years, then the amount of the said accumulations shall be disposed of by the said Governors in such manner as they in their discretion may think proper, so as they are applied for the promotion of Veterinary science."

The Secretary (of the Association), in continuation, remarked that the stimulus thus given to exertion would, perhaps, be increased when the members were informed that, for three years previous to his death, Professor Coleman had placed in his hands £5 annually for the same purpose, so that he was in possession of £15. This, with the legacy, he considered a prize worth striving for, and he hoped that there would be many competitors for THE COLEMAN MEDAL.

\*.\* The above is the document referred to by Mr. Cartwright in the last Number of 'THE VETERINARIAN.'

## CLINICAL NOTES.

By MARSHALL HALL, M.D. F.R.S., &amp;c.

(Communicated by J. RUSSELL REYNOLDS, M.D.)

*Hints for the Treatment of Hydrophobia.*

MANY years ago I had the opportunity of watching the course of a case of hydrophobia. It occurred in a little boy; and I scarcely left the room during the eight and forty hours that he survived. But I need not detail the series of symptoms which occurred, and which I have described elsewhere, on the present occasion.

It has appeared to me that there are *three* modes of death in this disease:—1. Sudden death from asphyxia. 2. Sudden death from secondary asphyxia. 3. Sudden death (for in all the cases I think the death is sudden and unexpected at the precise moment at which it occurs) from nervous exhaustion.

Either of these modes of dissolution would be averted by the timely institution of tracheotomy. Indeed, if this measure were adopted, the frightful seizures which occur from trying to take liquids would be obviated. These seizures consist in fearful attacks of laryngismus, and of convulsion of the neck and pharynx, but chiefly of laryngismus, with threatening of instant suffocation. These seizures would be disarmed of their force and terror by tracheotomy.

Tracheotomy thus obviating the *effects of laryngismus*—1. The sudden death from asphyxia, the immediate result of asphyxia, could not occur; and 2. The sudden death from secondary asphyxia, the more remote result of many attacks of laryngismus, could not occur!

There remains the sudden death from exhaustion. It is a question whether this would occur necessarily from the poison of hydrophobia. Why should it occur *necessarily* from this poison? No reason can be given for this; and we are not to be misled into a conclusion unsupported by facts, since, though all cases of hydrophobia have proved fatal, they have proved fatal by a mode by which they would not occur if tracheotomy were performed.

Could any measures be adopted to check the violence of the spasm,—laryngismus and its effects being obviated,—such as the hydrocyanic acid, and so to prevent the subsequent exhaustion? Or could any remedies be adopted to remove this exhaustion more directly, as wine or cinchona?

These hints I throw out for the consideration of my professional brethren, in the *hope of good*.—*Lancet*, Feb. 12, 1853.

## HYDROPHOBIA FROM THE BITE OF A CAT.

A correspondent of the *Cork Examiner* states, that twenty-eight days exactly from last Saturday, the 5th of March, a poor but industrious woman here, while in the act of taking a cat out of a child's bed into which it had entered, was seized on by the animal and severely bitten. The cat fastened so firmly on the woman's hand that she could not shake it off. She beat it—dragged it, and used other violence towards it, but to no avail. The cat still held its hold, and it was only when the unfortunate woman's husband appeared, and had beaten the cat dreadfully on the head, that it relinquished its grasp. That night the woman felt exceedingly cold—and from then until last Saturday was very much troubled in mind, and, at intervals, suffered a good deal from headaches. On Saturday she became alarmingly ill, as if in high fever, and was attended by her clergyman, who, on learning from her husband the fact, that she had been bitten by a cat, at once suspected the cause of her sickness, and speedily saw his suspicions confirmed, by her frightful abhorrence of any species of liquid nourishment. Two medical men, from the neighbouring town, were summoned to her assistance, who declared at once that she was suffering from hydrophobia. On Sunday she was perfectly delirious, but only at intervals. So also on Monday, Tuesday, and during a few hours on Wednesday, on which day, at four o'clock, a.m., she died quietly, being completely enfeebled for want of nourishment.

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## HYDROPHOBIA IN SHEEP.

*To the Editor of the Times.*

SIR,—On reading the *Times* of the 25th inst., the account of some sheep going mad, in consequence of being bitten by a dog, I was struck with the similarity of that case to one that has occurred in this neighbourhood, namely, the parish of Wootton, within the last few weeks. The difference between the two cases consists in this, that the dog could not be traced, nor has it since been heard of. Two neighbouring farmers, Mr. Whitehouse and Mr. Whitworth, had their flocks of sheep worried on the same night, and on the following morning found that several of the sheep were severely bitten about the ears. No further notice was taken,



until the shepherd was surprised at the manner of one of the sheep, which, the moment he entered the fold, ran at and butted him down. In the course of the day it was proved, beyond all doubt, that some of the sheep were mad; and the same day it was found to be the case with his neighbour's flock. The loss to them both at present is thirty fat sheep; how many more may go it is at present impossible to say. Now, my object in giving you this information, is not so much to convey the news to you, as to inquire if there cannot be some measure taken to prevent the recurrence of these things. The present mode of taxing dogs is so inefficient, and the tax so easily evaded, that we are literally infested with them. They are constantly fighting in the streets, and no farmer's stock—which is, of course, at times some distance from home—is safe. In the cases I have named we cannot at present say where it will end, as the horse and cow stock may also have been bitten, and not yet show it. I would suggest that no person be allowed to keep a dog without being licensed so to do, and paying a certain sum annually for such license, and be compelled to show it, if requested, to some appointed authority,—say the Superintendent of Police,—who should be instructed to demand the production of it upon complaint from any person who may have reason to believe such party has not been licensed. This would, I think, tend to do away, in some degree, with poaching; in addition to which, it would yield, I am persuaded, an increase to the revenue. Pray, Sir, lend your aid in ridding us of a dangerous nuisance. If you think what I have said worth inserting, I hope it may lead to some useful measure being brought forward on the subject.

I am, Sir,

Your obedient Servant,

A FARMER.

AMPTHILL, BEDS; Jan. 29, 1853.

#### DEATH OF A WHOLE FAMILY FROM GLANDERS.

A whole family, named Uncles, residing at Maugherow near Lisadell, have been swept away by glanders. The father purchased a horse infected with this distemper some time back at a fair at Mayo. He soon afterwards took the disease from the beast; then his wife and four children caught it, and they all died in great agony. We have heard that two girls, living at a place called the Windy Gap, about two miles from this town, have also been lost by this dreadful disorder.—*Sligo Champion*.

## FEARFUL CASE OF HYDROPHOBIA IN A HORSE.

On Saturday last, a strong harness horse, the property of Mr. M'Crum, of the mills, near Arinagh, died in a rabid state. The animal, on the day previous, appeared excited, and showed other symptoms of illness, sweating more than usually, when at work, and when yoked to the plough, frequently biting and snapping at the other horse, in an extraordinary manner. In the evening he became worse, and, during the night, was so violent as to alarm the kilnman, who called the other servants, as well as Mr. M'Crum, who lost no time in sending for Mr. Small, Veterinary Surgeon. In the interim, one of the men offered the horse a bucket of water, and was furiously attacked by the animal, and bitten on the brow, immediately above the eye. Another man, in attempting to secure the horse, was likewise bitten on the hand. On Mr. Small's arrival, he immediately discovered the fatal symptoms of hydrophobia, and pronounced the animal rabid. He had the unfortunate men who were bitten forthwith sent to Armagh, where their wounds were cauterised and dressed by Dr. Robinson, of the County Infirmary. Every effort was made to secure the horse in the stable, but in vain. He rushed open-mouthed at any one who dared to approach him, and, in frightful frenzy, tore down manger, rack, and stalls, raging and foaming amidst the ruins. At length he burst open the door, and made his escape to an adjacent orchard, where, being well enclosed, he was secured from doing further mischief. During the paroxysms, which increased in violence every hour, he attempted to bite or seize with his mouth any object that came in his way. About mid-day he got entangled in the branches of an apple-tree, where he struggled till completely exhausted, then fell back, and died in dreadful agony.

A careful post-mortem examination was subsequently made by Mr. Small, who found all the symptoms of rabies fully confirmed. The horse had been for several years in the possession of Mr. M'Crum, and, previously to the attack, was a docile and tractable animal. We understand Mr. Small stated, in reference to this case, that although the animal was very violent when water was presented to him, and literally stamped the bucket to atoms under his feet, that hydrophobia, or dread of water, is no symptom of rabies in the lower animals. This is a striking fact which is worthy of public attention, when vouched by such competent and experienced professional authority.

It is supposed that the horse contracted the disease from the bite of a dog, supposed to have been rabid, and seen in the neighbourhood of Keady, about three weeks since. It was a fortunate circumstance that Mr. Small was so soon at hand, and that he at once pronounced the case one of hydrophobia: otherwise, frightful consequences might have ensued to all the men about the place, who, in their ignorance of the terrible malady of the animal, would, doubtless, have been more venturesome in endeavouring to secure him.—*Armagh Sporting Chronicle; March 12, 1853.*

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### SPONTANEOUS OR IDIOPATHIC EMPHYSEMA.

BY W. BURKE RYAN, M.B.

[WE extract the following remarks on this subject from a paper in the *Medical Times*, as applicable to broken-wind and scarlatina:]

Traumatic cases of emphysema we are sufficiently acquainted with, including that which must be called traumatic, and which sometimes is seen to occur during the struggles of severe labour; but spontaneous emphysema must be regarded as a very rare complication of scarlatina,—indeed, rare in any case of disease in this country, even in cases of a typhoid or malignant nature. It is seen in the fevers of warm climates, and would appear to be considered a secretion of air or gas from the blood, although it seems scarcely legitimate to infer its being a secretion from a comparison of what occurs in many species of fish, where air is generated in the sound or swimming bladders,—the one being a diseased and abnormal product, the other a healthy secretion. In typhoid and adynamic fevers, if we find it, we are somewhat prepared by a lengthened and extreme depression of the vital powers, and we look upon it as consequent upon depraved or vitiated blood in the nature of a decomposition.

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### AMERICAN IRON.

Now is the time, if ever (says the *Evening Mirror*) for American iron-factors to put their furnaces, forges, and rolling-machines in order, and demonstrate that they can, even without the factitious protection of Government, compete with the world in iron products.

The stores of English iron accumulated in view of prospective railroads, stopped by the bursting of the railway mania in Britain, have been precipitated on our markets at low rate until they are exhausted, and, while our demand is rapidly increasing, through the extension of railroads, machinery, iron buildings, fences, &c., the accustomed plentiful supply from abroad is cut short. The consequence is, that iron of all kinds has largely advanced, and promises to advance still further and for a long time. Another consequence, more gratifying if the advantageous impulse be rightly improved, is a prospect of reopening of all the closed iron-works of the country. It is safe to calculate that the present good time for iron-men will last four or five years before competition and extravagant mismanagement can again flux the market.

To this the *New York Courier* adds—"If the late remarkable enhancement of the price of iron be indeed a 'gratifying' circumstance in view of the prospect that the price will keep up three or four years, then why should it not have been equally 'gratifying' if Congress had imposed a specific duty on iron three or four years ago, whereby our iron-works might have received an 'advantageous impulse,' with not merely a doubtful prospect, but with a moral certainty that this 'impulse' would hold good until home competition should have reduced the price of iron. If it be such a good thing to have the price of iron put up by British iron-masters for their own profit, why would it not have been a still better thing to have had it stiffened years ago by your own legislation, whereby the enhanced price paid by our people would have been paid into the federal treasury, or served to stimulate enterprise and reward labour here at home? Why?"—*Morning Post*.

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#### SOME OBSERVATIONS RELATIVE TO THE PROPOSITION OF OPENING THE TRACHEA BY DILATATION, TOGETHER WITH AN INSTRUMENT DEvised FOR THAT PURPOSE.

By Z. JOHNSON, Esq., *Surgeon to the Kilkenny Infirmary*.

THE instrument which I propose will be understood best by inspection. It combines, with a curved trocar, the principle of Ricord's ingenious speculum vaginæ. The trocar is furnished with a pair of lateral springs, which, by divaricating the wider end of the canula, keeps it closed behind the



shoulder of the blade until the wings or arms are compressed towards each other, when the trocar becomes immediately disengaged, and can be instantly withdrawn.

The mode in which I propose to use it is this: A suitable incision having been first made through the integument in the mesial line, the operator takes the instrument in his right hand, and then, by directing it backwards and downwards, in a direction very much indicated by its own curve, introduces it, between two of the rings, into the trachea. Then compressing the little curved arms with his left hand, he at once disengages and withdraws the trocar, and has now his right hand free to turn the revolving nut, which will keep the sides of the canula in any degree of dilatation which may be required.

The instrument now submitted is extremely rude, and only meant to exemplify the principle of that which is proposed for the consideration of the profession. It will be seen that I have been even obliged to construct the divaricating springs, on which the perfect working of the instrument so much depends, of bits of whalebone, not being able to meet with a smith here who could properly attach them for me. I hope, then, that all due allowance will be made for the imperfections in the finish and construction. The *rationale* of the device will, I hope, be understood and appreciated from this model.

The trocar blade, if the instrument be skilfully constructed, will without difficulty cut its way into the trachea, while the "tactus eruditus" will at once admonish the surgeon when he has arrived there. Should an irregular arterial branch cross the site of his operation, it will roll aside from the touch of such an instrument and escape division, while the tapering form of the instrument not only favours the dilatation of the structures to be traversed, but, by its wedge-like action, is well calculated to prevent hæmorrhage, should a vein be opened, while the operator gains this additional advantage, that he fixes in the trachea his canula by one and the same act which opens the passage.

Mr. Smiley said he had used a pointed trocar on three different occasions, and gave it as his opinion that the instrument forwarded by Dr. Johnson was calculated to be of great service to the profession; though, at the same time, he did not think it would supersede the necessity of making a larger opening into the trachea. Where there was hæmorrhage, or any urgent necessity for opening the trachea, they might insert the instrument, and in the course of a few hours afterwards an opportunity would be afforded for enlarging

the aperture. It was very difficult to keep the tube in the trachea when the patient gave a violent cough, and he was inclined to think that the dilatation at the extremities of Dr. Johnson's instrument would facilitate its retention.—*Dublin Medical Press.*

[\*\* Might not some contrivance of the kind prove useful in veterinary surgery? We have not seen the instrument here described.—ED. VET.]

### SALE OF GLANDERED HORSES.

*Thomas Blackburn*, who had been out on bail, was charged with having, at Darlington, on the 10th of November, unlawfully caused a horse affected with the glanders to be taken into a certain public place, well knowing the horse to be so infected. Mr. Davison stated the case. It was one he observed, of an unusual kind, being only the second of the same description which had ever been tried. The prisoner was indicted for exposing for sale in the horse-market of Darlington, a horse which at the time was glandered; and to make out the case for the prosecution, it would be necessary, in the first place, to prove that the horse was defendant's; and, secondly, that he knew it was infected. The prosecutor, Mr. Scott, was a farmer at Elstob, and on the day in question was at the Neat Fair in Darlington, and had a horse for sale. Whilst showing the horse, a person named Macdonald, who represented himself as Mr. Watson, of Norton, told the prosecutor that he had a mare for sale; they then retired to a public-house, and entered into a negociation. Watson wanted £6 to boot, but ultimately he took £4, which Mr. Scott handed over to Watson, and Mr. Scott then saw a portion of the money handed by Watson to the prisoner at the bar. The horses were then changed, and Mr. Scott was shortly afterwards told that the horse he had got was glandered. The prisoner, who was a carrier, afterwards made a joke of the matter, and not only said Mr. Scott was taken in, but that he had sold him a mare which was glandered; and evidence would also be called proving that the prisoner offered to compromise the matter, and that the horse had been in his possession, and had had the glanders six months or longer. Witnesses to these facts were then called. Mr. Adams, of Aycliffe, and Mr. Flintoff, of Darlington, veterinary surgeons, were examined as to the disease under which the horse laboured. Mr. Adams said the horse had been glandered at least six months—he should

say more; it was possible the discharge from the nostrils, for six hours or more, could be stopped, and the disease could not be perceived by an ordinary person till it broke away. There were two ways of stopping the discharge—1st, by putting tow up the nostrils: and, secondly, the most usual, but cruel method—putting a stringent powder or vitriol up the nostrils. Mr. Flintoff said the animal was labouring under the chronic form of the disease; it had laboured under it eight or ten months, and the disease was highly contagious to both cattle and human beings. Mr. Liddell addressed the jury in defence, and called two witnesses with a view to prove that the prisoner was not aware that the animal laboured under the disease. Mr. Davison, in reply, said the prosecution was brought on public grounds. Mr. Scott: If the prisoner was committed, he hoped it would be a lesson to both him and to others. The Chairman having summed up, the Jury, after a short consultation, returned a verdict of Guilty. Mr. A. Liddell, in mitigation of punishment, asked the Court to inflict a fine, as the prisoner could not be aware of the serious consequences of exhibiting the animal in a public Market Place. The Chairman said the Court was of opinion that this was a serious offence, and should be marked by severe punishment, but as the only case reported was provided by a pecuniary penalty, the Court had determined that the prisoner should be fined £15, and be imprisoned until it was paid. Concerning a case that had been heard in the Court previously, in which an attorney for the prosecution, having a knowledge of a previous conviction against the prisoner, had, on account of the expense and trouble involved, neglected to produce such conviction, the Chairman intimated that on any future occasion the entire costs of the prosecution would be disallowed.

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#### CHLOROFORM IN PHAGEDÆNIC ULCERS.

SINCE chloroform began to be used as an anæsthetic agent, the minds of many practitioners have been bent upon extending the therapeutical applications of this agent. It has been inhaled in epilepsy, tetanus, and other convulsive diseases; it has been taken into the stomach in cases of cholera, and has been applied, by M. Aran, of Paris, to joints affected with acute rheumatism, and to the abdomen of patients suffering from lead colic. M. Aran has found chloroform extremely useful in the two last-named disorders, and we have no doubt but this compound will be more and

more tried in all cases where a powerful local sedative is required.

One can easily understand how chloroform, applied upon a painful joint, or on the abdomen in colic, should give relief; but, on general principles, it is less easy to see how ulcerations should be benefited by it, except it were by a stimulating action. This stimulating power of chloroform, or capability of changing the character of an ulcerated surface, was lately put to the test by Mr. Hancock, at this hospital, in a case of a phagedænic chancre situated in the vestibule of a woman about thirty years of age.

The patient was admitted under the care of Mr. Hancock, January 14, 1853, and, as there was much debility and exhaustion, besides the syphilitic ulceration, Mr. Hancock prescribed bark and nitric acid, with soothing applications to the ulcerated parts. When, however, the chancre began to assume a phagedænic character, the promptest means were employed to arrest the destructive ulceration. Among these, Mr. Hancock used chloroform, as he had found, from previous experience, that even diluted with water it had a decidedly beneficial influence on phagedænic ulcers. The chloroform was here used in an undiluted form, and a few applications were sufficient to stay the phagedænic tendency of the ulcer. The pain was rather severe, but not so much so as when pure nitric acid is employed; and it was found that chloroform, though less destructive, had just as much, if not more, power in arresting phagedænic action than nitric acid. The chancre has now assumed a healthier character, and is rapidly progressing towards cicatrisation.

Mr. Hancock, in commenting upon this case, took occasion to remark that he had lately treated cases of phagedænic ulceration which had resisted applications both of opium and nitric acid; recourse was then had to chloroform, and with the happiest result.—*Med. Circular; Feb. 16.*

\*.\* What effect would this agent have in canker?

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## VETERINARY JURISPRUDENCE.

### BRISTOL QUARTER SESSIONS.

#### SMART *v.* MAUNDER.

THIS was an action brought to recover the value of a horse, alleged to have died in consequence of the neglect and unskilful treatment of the defendant. Mr. Prideaux appeared for the plaintiff, and Mr. Stone for the defendant.



Mr. Prideaux, in opening the case, said the action was brought to recover the value of a mare, which had become lame in consequence of the unskilful shoeing of the defendant, and had to be killed. A second count of the declaration set forth that the defendant was retained to treat the horse after it was lame; that it was treated carelessly and negligently, and that in consequence of such treatment the horse became unsound, and ultimately had to be killed. The defendant first pleaded not guilty, and secondly he denied that he had been retained to treat the defendant's horse as the declaration alleged. The facts of the case were shortly these:—The plaintiff was a lime-burner, brick and tile-maker, a stone and coal-merchant, and a barge-master, carrying on business in Avon Street, St. Philip's, and the defendant was a farrier in the same street. In the year 1849 the plaintiff bought a valuable mare for £26, which was employed to draw barges between this city and Bath. The defendant was engaged to shoe the plaintiff's horses, and he had shod the mare in question. After the mare had been shod she was employed in her usual work of drawing barges between this city and Bath; but about three weeks after being shod, whilst returning from the above place, it was found that the mare was lame. When the mare was brought home she was taken to the plaintiff's stables, where she was attended by the defendant till killed by his advice. He should be able to show by the evidence of two witnesses, named Wiltshire and Luker, that all the defendant had done was slightly to pare the sole of the foot, and to apply a poultice to it, with the exception of, on one occasion, when he applied a little powder to the upper part of the foot; whereas, as he understood the case, the horny part of the sole of the foot ought to have been cut away, so as to free the matter. Finding that the mare was getting worse and worse, the defendant said it was a bad job, and the mare had better be killed, which was accordingly done. With respect to the value of the mare, he should be able to show that she was a valuable animal, and that in consequence of the increased demand for labour, the value of cart-horses, such as the one in question, was much greater now than a little while ago.

Wiltshire, a haulier, and Luker, a lime-burner, were then called, and deposed that the defendant had only slightly pared the horny part of the horse's hoof, and had only applied a poultice to it, with the exception of once applying a little powder. In his cross-examination, Luker said the defendant had cut away the hoof quite thin; but witness, who was present, saw no trace of any matter; the hoof was poulticed

and hot bathed, and blood taken from the toe; the mare was ill about three weeks. Witness had been acquainted with horses for the last fourteen years, and he did not know what was the matter with the mare; there was proud flesh on the hoof, to which Mr. Maunder applied lunar caustic.

Mr. John Kent was then called and deposed that a hoof of a mare was brought to him on the 18th February; he carefully examined it, and saw that matter had been formed in it, and that it had worked its way out at the top instead of being let out at the bottom; it would not have been a difficult case for one who knew what he was about; the matter had forced its way out at the top; the object should have been to let the matter out at the bottom, which could have been done if the sole had been properly removed; it was a great object with a veterinary surgeon not to allow of the escape of matter at the top; he saw no proud flesh; in his opinion the want of proper treatment was the cause of incurable lameness.

Cross-examined.—The lameness might have been caused by a nail driven in too close when shod three weeks or a month ago; lameness in that case would not necessarily come on gradually; it might come on suddenly; he had never known lameness arise from a ruptured vessel, but he had known lameness from an injured ligament; bleeding in the toe in a bungling manner would sometimes cause inflammation, and the consequent formation of matter; the paring of the sole was proper so far as it went, but it was not enough. If a man did not know how to discover the existence of matter, of course he would not know it was there any more than a blind man could see. Witness had had horses die under his treatment; he had an action brought against him for improper treatment, but he gained the action, as the treatment was not improper.

One or two witnesses having deposed to the value of the horse, from £15 to £20,—

Mr. Stone addressed the Court on behalf of the defendant. He said he had not troubled himself much about the evidence given, being as to the value of the old mare which they had heard cost £26 four years ago, during which time she had been thoroughly worked, because the verdict of the jury would turn upon the view they might take of the conduct of the defendant in his treatment of the horse in question. It would appear that, according to the plaintiff's own showing, the horse had been shod on all four feet about three or four weeks previous to its getting lame. A day or two before that event one of the feet had been re-shod, but it

fortunately happened that that was not the foot in which the lameness had occurred. During these four weeks the horse had been regularly hard worked, but no disposition to lameness had shown itself. On the 31st January she was driven to Bath as usual, but on her return, when near Bristol, she all of a sudden became dead lame, so lame that she could not put her foot to the ground, and in that crippled state she hobbled into Bristol, and was taken to the owner's stables, where she was seen by the defendant. The defendant treated the horse with what skill he possessed, and the jury had heard from the evidence that he had adopted every expedient which suggested itself to his mind.

After a brief summing up, the jury returned a verdict for the defendant.—*Bristol Mirror*, 16th April, 1853.

## THE VETERINARIAN, MAY 1, 1853.

Ne quid falsi dicere audeat, ne quid veri non audeat.—CICERO.

The statement Mr. Major has made in regard to the occurrences between him and ourselves is a correct one. The reason why the horse was not sent to his stables on the day appointed was that the funeral of the Duke of Wellington occupied the entire regiment for several days, and forbade us losing the services even of a single man and horse. This over, however, the horse in question was sent, and was refused admission by Mr. Major, as has been already stated, on the score of want of room for him. Mr. Major, as he asserts, made us the liberal offer of "both keeping him and treating him for nothing;" and we can only regret, for his sake as well as our own, that circumstances interposed which frustrated the object we both had in view. We are sorry Mr. Major should entertain so mean an opinion of us as for a moment to imagine us to be capable of acting double with him—in his own words, to be behaving towards him "on a par with other treatment he was then receiving from Veterinary surgeons"—and to "consider" that we were "fooling" him. We had but one object in view, and that

was to test, on what we regarded a most fit subject, the power of the "British Remedy;" had which experiment turned out favorably, the horse would have been retained in the service, and Mr. Major's name as far advanced in estimation for the cure of spavin in the First Life Guards as it appears already to be in the Royal Horse Guards. Whatever opinion Mr. Major, in his own mind, may entertain of ourselves, we can assure him, in the isolated and independent position in which we stand, our report of his "Remedy" would have been *a faithful and an impartial one*; and, further, that, in the event of its success, no authority should have outvied us in commendation and laudation of it.

What Mr. Major, and others not professing medical knowledge, may think about spavin, seems hardly to amount to more than it is *a cause of lameness of untoward character*; without considering for a moment either the complex structure it has for its seat, or its origin, nature, and termination. Navicularthrititis and spavin are, pathologically viewed, twin sisters: both are essentially disease of synovial membrane, the tendency of which is to disorganise not the membrane alone, but the articular cartilages too, and lastly, the bones themselves as well. If the disease be allowed to make head, or does in spite of treatment progress, chances of recovery become more faint; still recovery—recovery at least for work—does now and then follow even in this second stage of the disease; though the cases of success are, of course, more numerous after the first stage.

To explain what we mean by "recovery for work," will require a few introductory words concerning the anatomy of the hock-joint. This complex structure consists of several joints or distinct articulations, one of them, that between the tibia and astragalus, being of more importance than all the rest, inasmuch as in it resides so large an amount of the motion (flexion and extension) of the hock, that what limited action the others possess appears to exist more for the sake of diminishing concussion, by acting as springs to the hock, than for any purposes of real motion. This view of the physiology of the hock-joint enables us to explain how it is



that so many horses are said to be recovered of spavin, and, in fact, are recovered so far as to perform so well that actual lameness is no longer perceptible; though, to a professional eye, the action of the hock is not what it originally was, or what in perfection it ought to be: there being to such an eye a *stiffness* or want of thorough flexure in it, which betrays to the judge of such matters its faultiness, notwithstanding such be overlooked by the common run of people.

From what has gone before, we shall readily understand how it happens, that some horses having spavin are curable, *i. e.* recoverable for work, whilst others, do what we will to them, are in nowise to be benefited by treatment. If the main joint—that between the tibia and astragalus—be the seat of disease, consisting in ulceration of the membrane and cartilages within the joint, then may the case be regarded, with rare exceptions, as irremediable: it being of the nature of what is called *white swelling* in human medicine. But, should the disease be external to the joint, or only exist in the minor joints, consisting for the most part, or perhaps entirely, in conversion of that which was soft and pliable, and elastic—ligament and periosteum—into osseous unyielding material, and especially when lameness proceeds from the presence of inflammation in such parts, then is recovery, not only possible, but most likely to follow, either under the employment of antiphlogistic measures topically applied, or, what is better, under the use of some counter-irritation, either in the form of a vesicatory or actual cautery, or even in the simple stimulant or sloughing form: in such a form, in fact, as Mr. Major is now, we understand, employing. Consequently, there is nothing that need excite surprise in the mind of the professional man, that Mr. Major, or Mr. Anybodyelse, has some nostrum, which, under such circumstances, will effect the cure of spavin; no more than there is, that the Veterinarian's own preparations of iodine or mercury, or his blisters or firing, should accomplish it. Of such cases, some let alone will, through repose, work their own cure; nay, in the course of time, may happen to do so even at work. The grand test of a specific is not such a

case as this ; but a case of the white-swelling class—a case of ulceration within the joint, as well as ossification without—a case which resists all the treatment of the professional man : cure such a case as this, we say to Mr. Major, and we will show ourselves among the first and foremost to give your “ Remedy ” its meed of commendation.

For saying so much, however, we run great risk of being laughed at by Veterinary surgeons, who will naturally ask us, if we suppose that such lesions of the joint, inside and outside, be ever—admit of the possibility of being—restored to their normal conditions, so as to become the identical tissues they originally were. It is possibly this consideration—and it constitutes a tolerably strong defence—which makes medical men so averse to listening to any reports or stories about “ cures ” for this or for that, when they all the time know full well, that the disease or stage of disease stated to have been “ cured ” by the vaunted remedy, is out of the pale of possibility of normal restoration, let the means employed have been what they may.

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## ROYAL COLLEGE OF VETERINARY SURGEONS.

QUARTERLY MEETING OF COUNCIL, APRIL 6TH, 1853.

Present : Messrs. Cherry, Henderson, Silvester, Stockley, Professors Simonds and Morton, and the Secretary.

Mr. STOCKLEY in the Chair.

The minutes of the previous Meeting having been read and signed,

Messrs. *South* and *Broad* were, on the motion of *Mr. Gabriel*, seconded by *Mr. Silvester*, appointed to audit the Accounts of the past year.

*Prof. Morton* and *Mr. Wilkinson* were appointed to assist the Secretary in drawing up the “ Abstract ” to be presented at the Annual Meeting.

The *Treasurer* presented the Annual Balance Sheet. The expenses amounted to £262 9s. 8d., and the receipts to £665 9s. 4d., leaving a balance of £402 19s. 8d.

*Mr. Cherry* drew attention to an alleged error in the accounts of the College from 1846 to 1849, amounting to £62 2s. He then gave notice that he would bring forward the following motion :

“That a Committee be appointed to prepare a consecutive account of the finances of the Royal College of Veterinary Surgeons, from its formation to the present time.”

The *Secretary*, as registrar, reported that he had received during the past year accounts of the death of twenty-two members of the College, stating, however, that all the deaths had not occurred within the year. The number of Admissions during the year was twenty-nine.

*Prof. Simonds* suggested that another edition of the Register should be prepared, in consequence of the removal by death, or otherwise, of many members, and the alteration of the addresses of others, which had been ascertained since the publication of the last edition. He further suggested, that to facilitate reference, the names should be geographically as well as alphabetically arranged.

*Mr. Cherry* proposed, that the names of members known certainly to be dead, should be printed in a separate list, and not simply distinguished by being printed in italics.

*Mr. Henderson*, as a member of the House Committee, reported, that pending the negotiations of the solicitor with the assignees of the house in Hart Street, Bloomsbury, which the Council at the last meeting resolved to purchase, the premises had been sold to another party, so that the Council would have to seek a residence elsewhere.

*Prof. Simonds* suggested that a sheet of vellum should be kept by the Council, on which should be inscribed the names of the principal officers of the College from its foundation.

The proceedings then terminated.

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#### SPECIAL MEETING OF COUNCIL, APRIL 20TH, 1853.

Present: The President, Messrs. Braby, Burley, Cherry, A. Cherry, Dickens, Ernes, Henderson, Nice, Peech, Pritchard, Stockley, Silvester, and Wilkinson. Professors Spooner, Simonds, and Morton, and the Secretary.

The *President* in the Chair.

The minutes of the previous meeting were read and confirmed.

*Mr. Cherry* asked if he could now bring forward his motion (of which he had previously given notice) respecting the finances of the College.

The *Chairman* said the meeting was a *special* one, and that, consequently, *Mr. Cherry's* motion could not then be entertained; but at any subsequent *general* meeting its consideration could of course be entered upon.

The *Secretary* read the Annual Abstract of the Proceedings of the Council during the past year, to be laid before the Annual General Meeting.

On the motion of the *Treasurer*, seconded by *Prof. Simonds*, the Abstract was unanimously adopted.

The *Treasurer* read the Annual Balance-Sheet. The receipts, including a balance in hand from last year of £304 17s. 4d., amounted to £665 9s. 4d., leaving, after deducting the current expenses of the year, a present balance of £402 19s. 8d.

The *Chairman* thought the *Treasurer's* report a very favorable one, and said the balance in hand was larger than should be kept at the bankers, but for the prospect of obtaining a suitable residence for the College.

On the motion of *Mr. Wilkinson*, seconded by *Prof. Spooner*, the balance-sheet was adopted.

The *Secretary* stated that the six gentlemen who this year retired by rotation from the Council, were Messrs. Field, Ernes, Mayer, Nice, Burley, and Withers.

The following gentlemen were then nominated as Members of the Council:

Mr. Field (London)	by Mr. Robinson.
Mr. Burley (Leicester)	„ Mr. A. Cherry.
Mr. Mayer (Newcastle)	„ Mr. Henderson.
Mr. Ernes (London)	„ Mr. Stockley.
Mr. Withers (Bristol)	„ Mr. Wilkinson.
Mr. W. J. Goodwin (Hampton Court)	„ Mr. Gabriel.
Mr. Nice (London)	„ Mr. Braby.
Mr. Crowe (Shrewsbury)	„ Prof. Simonds.
Mr. Gowing (London)	„ Prof. Morton.
Mr. Richardson (Lincoln)	„ Prof. Spooner.
Mr. Stanley (Leamington)	„ Mr. Pritchard.
Mr. Adams (Plaistow)	„ Prof. Simonds.
Mr. W. Mavor, Jun. (London)	„ Prof. Spooner.
Mr. F. Case (Huntingdon)	„ Mr. Dickens.
Mr. Barrow (Newmarket)	„ Mr. Braby.
Mr. Cheeseman (Wandsworth)	„ Mr. Braby.

Professors Simonds and Morton, and the Secretary, having been appointed by the President as the Supervision Committee for this and the previous meetings, the proceedings terminated.

After the Council Meeting, the President (Professor Sewell), previous to his retiring from office, gave a dinner at the Freemasons' Tavern to the Council, which was numerously attended, and at which those kindly interchanges of sentiments took place that tend so much to bind together the members of a common profession.

J. B. SIMONDS,  
W. J. T. MORTON,  
E. N. GABRIEL.

#### ERRATA.

Page 182, line 9 (in Mr. Cartwright's Paper) for "horses," read "hooses."  
 " " " 19 " " " for "separate," " "suppurate."  
 " 183, " 21 " " " for "horse," " "hoose."  
 " 236, " 3 (in the Leader) for "From," " "Were."



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ANNUAL MEETING OF THE ROYAL COLLEGE OF  
VETERINARY SURGEONS.

[From our own Reporter.]

THE Ninth Annual Meeting of the Royal College of Veterinary Surgeons was held, in pursuance of the provisions of the Charter, on Monday, the 2d ult., at the Freemason's Tavern, Great Queen Street, to receive an abstract of the proceedings of the council, and to elect six members of council in the place of six others who retired by rotation. The following is a list of the gentlemen present on the occasion:—

Messrs. Robt. Bowles, E. Braby, Jas. Broad, W. Burley, F. C. Cherry, A. Cherry, W. Cooke, W. Cooper, H. Daws, Charles Dickens, J. Dunsford, T. W. Gowing, E. N. Gabriel, Jas. Hall, A. Henderson, H. W. Hooper, T. W. Mayer, W. J. P. Morton (Prof.), J. Moore, S. Peech, R. Pritchard, W. Robinson, J. Rose, C. T. Shorten, F. R. Silvester, J. B. Simonds (Prof.), G. South, C. Spocner (Prof.), W. Stockley, Thos. Taylor, J. Turner, Richard Vines, Joseph Woodger, Geo. Yeomans.

The chair was occupied by Jno. Rose, Esq., Vice-President.

*Prof. Morton* announced that *Prof. Sewell*, the President of the College, was confined to his bed from a severe attack of pleuro-pneumonia, and was, much against his earnest desire, forbidden by his medical adviser to attend and preside over the meeting.

On the motion of Mr. Gabriel, Mr. Rose, vice-president, was called to the chair in the absence of *Prof. Sewell*.

*The Secretary* read the notice of the Meeting in the *London Gazette*, the minutes of the preceding meeting (which were confirmed), and the following annual abstract of the proceedings of the council:—

*Abstract of the Proceedings of the Council of the Royal College of  
Veterinary Surgeons, during the Year 1852-53.*

It is extremely gratifying to your Council, on the return of another Anniversary, to be able, in this their Ninth Annual Report, to greet you with the assurance that "All's Well;" and if, during the past year, there may have been some points not arranged quite as harmoniously as a "Marriage Bell," yet nothing untoward has arisen to check our onward progress. Where so little change requiring comment has taken place, a brief report of our proceedings may suffice.

The Council had hoped to have been enabled to have announced to this meeting that a permanent residence had been procured for the College, in which all official business could have been transacted, and which at the same time would have afforded a residence for one of its officers, so that a medium of communication might always have been ensured, a point more immediately desirable for country members visiting the metropolis. A house in a most central locality was selected by a Committee appointed for that purpose, and orders were given to the solicitor to purchase the same; but, by one of the many instances of the "Law's delay," it was lost, and another site equally eligible has not as yet presented itself. The House Committee, however, will lose no opportunity of obtaining the object intrusted to their charge.

The endeavour to obtain the Bill of Exemptions, which was lost last year, has not as yet been renewed. This, however, has not arisen from any supineness on the part of those commissioned to carry it out, but has resulted from the sudden changes in the Government, and the more important topics which have engaged the attention of the Legislature, as well as from the fact, that it is feared the parties now in power do not entertain a favorable view of the measure; but of this the profession may be assured, that the very first opportunity of reintroducing the Bill which presents itself will be taken advantage of.

Your time-honoured President, Professor Sewell, this day resigns his office. His health, unfortunately, has not been such as to allow him to devote much personal attendance to the interests of the College, but his anxious desire for its continued improvement is well known to all.

No change has been made in the Register since its publication last year; but during the present year it is intended to publish a new edition, including the names of all those members who may have been admitted up to the time of its issue. The deaths will also be noticed, and any changes of locality which members may be pleased to forward; which they are requested to do to the Registrar.

The number of pupils who have received the Diploma of the College during the past year is 29, making the number that have passed since the obtainment of the Charter, 431. The deaths reported are 22, so that there are at present 1335 practitioners on the list of members.

The Board of Examiners is still presided over by Professor Brande: some changes had been contemplated, not in its constitution, but in its arrangements; the only alteration, however, that has taken place has been the addition of a Veterinary Examiner on *Materia Medica* to the Chemical Table, thus securing a Veterinary Practitioner to each division of the Board.

The Financial affairs of the College continue highly satisfactory, a balance of £402 19s. 8d., after the liquidation of all accounts given in up to the present day, being in your Banker's hands. Three Trustees for the College have been appointed—viz., Professor Sewell and Messrs. Robinson and Field, and it was intended to have invested a portion of the balance in hand in the Government Securities, but that idea is suspended until it has been ascertained what amount will be required for the residence for the College.

In conclusion, the Council confidently hope that this *resumé* will give satisfaction to the profession at large. The prospect now before us is as a bright vista, over which although for a time clouds may pass, they will not long rest darkening our progressive course; but as we press onwards and new views present themselves, these will increase its beauties and its brightness till we have attained that position for which we became incorporated, and which is and long has been the anxious aim of every deserving member of the profession. May these our anticipations be more than realised!

E. N. GABRIEL,

*Secretary.*

April 9, 1853.

ALEXANDER HENDERSON, *Treasurer, in Account of Cash with the Council of the Royal College of Veterinary Surgeons.*

DR.				CR.			
1852.	£	s.	d.	1851	£	s.	d.
Balance from last Year .	304	17	4	Board of Examiners .	81	18	0
Examination Fees .	357	0	0	Solicitor .	5	5	0
Copies of Register .	3	12	0	Secretary .	100	0	0
				Advertisements .	9	14	8
				Reporter .	11	13	0
				Rooms .	13	2	0
				Printing .	3	8	0
				Stationery, &c. .	8	7	0
				The late Registrar .	25	0	0
				Printing Diplomas .	2	2	0
				Stamping ditto .	2	0	0
				Balance in Hand .	402	19	8
	£665	9	4		£665	9	4

We, the undersigned, have audited the above and found them correct.

JAMES BROAD,  
GEORGE SOUTH.

April 18, 1853.

*Mr. Bowles* moved the adoption of the abstract.

*Mr. Burley* seconded the motion.

*Mr. Cherry* asked the meaning of the charge of £5 5s. stated in the Treasurer's account to have been paid to the solicitor.

*The Treasurer* said the charge arose out of the negotiations respecting a residence for the College, £2 2s. being the surveyor's fee, and £3 3s. the solicitor's charges.

*Mr. Cherry* wished to know why the reports in 'THE VETERINARIAN' of the three Meetings of Council held with respect to the house in Hart Street were allowed to be "jumbled" into one. If a reporter was employed by the Council he (*Mr. Cherry*) thought adequate reports should be published for the information of the profession.

*Prof. Simonds* said, as the negotiation for the house had failed, it was not considered necessary to furnish detailed proceedings of the Meetings in question.

*Mr. A. Cherry* asked how the number of diplomas granted, stated to be 29, agreed with the amount received for examination fees—£357.

*Mr. Mayer* said it was in consequence of the rejected pupils, who did not pay a second time. He then drew attention to that part of the report which referred to the Exemption



Bill. The Pharmaceutical Society, he said, had lately obtained a bill which gave them the power to summon any individual who assumed their name, and who thus rendered himself liable to a penalty of £5. He thought it very desirable that in any future bill which the Council might bring forward, some such clause as that should be introduced, so as to make it a penal act to assume the name of Veterinary Surgeon without proper authority. He was glad to find that the Post Office authorities had sent out instructions with reference to their new directory for several counties, that no one was to be described as a Veterinary Surgeon who could not produce adequate proof that he was a member of the College. (Hear hear).

*Mr. Vines* concurred in *Mr. Mayer's* observations. It was, he thought, of the highest importance that the public should understand the difference between veterinary surgeons who possessed certificates and those who did not.

*Mr. Dickens* thought a copy of the Register should be sent to every agricultural society, and every book-club in the country.

*Mr. Henderson* said the present charter of the Veterinary College rendered it illegal for any person to assume the name of "veterinary surgeon" without proper authority.

The *Secretary* read the clause referred to by *Mr. Henderson*.

*Mr. Turner* suggested that a list of *bonâ fide* veterinary surgeons should be occasionally inserted in the advertising columns of the *Times*, observing that the names of persons taking out shooting-licenses are similarly published. This method, he said, of keeping down the quacks would be rather expensive, but he thought a committee might be formed to collect subscriptions for that purpose from the profession at large.

*Mr. Vines* thought the plan an admirable one, and should be happy to become one of the subscribers.

*Professor Spooner* said they were informed by the report, that the present was the ninth anniversary of the Corporate Body, and he thought they should now consider what advantage had accrued to the profession from the obtainment of the charter. The observations that had been made respecting non-certificated members tended to show that the charter had failed in effecting the objects which they had in view in their exertions to obtain it; they tended to show that, although that first step might be a solid basis, a superstructure was needed before the profession could attain that position to which they were entitled. Many of the past annual meetings had been stormy ones in consequence of the differences of opinion existing between the members of the

profession, the members of the council, and the teachers in the various schools which had received the Queen's sign manual. So long as the London school was at variance with the Council, so long there were discordant meetings; but as soon as matters were amicably arranged between them, that degree of harmony had commenced which the report likened to a "marriage bell." They were not, however, in a right position, with reference to one of the schools. He would ask if the St. Pancras school had pursued the same course as that adopted by Professor Dick of the Edinburgh school, whether there would be that harmony existing of which mention was made in the report. He (Professor Spooner) thought the report should not issue from the Council without any mention of the fact that the Edinburgh school, so far from having in any way yielded to the sentiments of the profession at large, was still sending forth uncertificated members as practitioners. It might be said, that they underwent an examination, but that was not before a proper and officially appointed board, and the pupils who only passed that examination, were just as external to the corporate body, as the man who had been educated in a stable (Hear, hear). The Council had done its best to secure a house for its meetings and for the transaction of its business, but as yet had not succeeded. He should be glad to hear the opinion of the meeting as to the desirability of such a residence for the College, more especially as certain members of the Council thought that the state of their funds did not justify the expenditure that would be required. The report stated, with reference to the proposed Exemption Bill, that the present Government was not favorable to the measure. He (Professor Spooner) ventured to question that statement; he thought it would tend to make them lukewarm in their endeavours, and to abate their interest and their exertions in obtaining the bill. He thought in stating the number of pupils who had obtained diplomas, the report should have distinguished those who had graduated in the London, and those who had graduated in the Edinburgh school. Very few pupils from the latter school had received diplomas, while dozens had been sent forth from it into the country as illegitimate practitioners of the art.

*Mr. Vines* thought the distinction ought to have been made in the report, and suggested the propriety of appointing a committee to confer with Professor Dick, and to ascertain whether he would consent to the formation of a properly constituted board in connection with the Scotch schools.

The report was unanimously adopted by the meeting.

A ballot was then taken for the election of six members of Council, in the place of the following gentlemen, who retired by rotation, but were eligible for re-election: Messrs. W. Field, W. Ernes, T. W. Mayer, J. Nice, W. Burley, and S. H. Withers.

In addition to the names proposed at the meeting of Council, Mr. Vines was nominated by Mr. Daws (the former gentleman expressing a desire to serve on the Board) and Mr. Daws was nominated by Mr. Vines; Mr. Moon of Kingston, and Mr. Taylor of Derby, were appointed as Scrutators.

The following was the result of the ballot:

	Votes.		Votes.
Mr. Field .	25	Mr. Mavor .	4
„ Mayer .	25	„ Nice .	3
„ Ernes .	23	„ Richardson .	2
„ Burley .	22	„ Cheesman .	2
„ Withers .	19	„ Adams .	2
„ Goodwin .	14	„ Barrow .	2
„ Stanley .	10	„ Crow .	1
„ Gowing .	8	„ Dunsford .	1
„ Daws .	8	„ Broad .	1
„ Vines .	6		

The *Chairman* then announced that the election had fallen on Messrs. Field, Mayer, Ernes, Burley, and Withers.

On the motion of Mr. Robinson, seconded by Mr. Moon, a Vote of Thanks was unanimously accorded to the *Chairman*, with whose acknowledgment the proceedings terminated.

#### THE DINNER FOLLOWING THE MEETING.

In the evening, between sixty and seventy gentlemen, members of the United Colleges, sat down to dinner, the Chair being occupied by C. N. Newdegate, Esq. M.P. The Chair was supported on the right by Professor Spooner (in the absence of the President), Sir. J. Tyler, and R. B. Berens, Esq. of the Veterinary College; and on the left by the ex-President, W. Robinson, Esq., Baron Webster, Esq., — Willington, Esq., Professor Quain, S. Solly, Esq., F.R.S., and the principal Army Veterinary Surgeon. The Vice-Chairs were filled by Messrs. S. Baker and J. Rose, two of the Vice-Presidents of the College. The Cloth having been removed, the usual loyal toasts were duly honoured; after which the

toast of the evening was proposed by the Chairman, who said he rose with emotions of sincere pleasure to propose the health of the Governors of the Royal Veterinary College of Surgeons, and the health of their illustrious President. He deemed it a happy omen to the profession that the titles of the old and new Colleges were so nearly alike, as to cause, even to him, who had been for fifteen or sixteen years a governor of the older College, some confusion, so much so, that he first thought he was about to propose the drinking of his own health in connection with his fellow governors. (Laughter and cheers.) Instead of that, however, he was called upon to propose the healths of the governors of the new institution. He must confess, that he was among the number of those who feared when the corporate body came into operation, that there would be some danger of collision between it and the senior College. (Hear, hear.) But he was happy to say that which they all well knew, that the difference in the organisation of the two Colleges had only promoted the efficiency of the profession. (Cheers.) Long had he thought, and that anxiously, on the important question how the new organisation could work with the old, but he finally came to the conclusion, that, understanding each other, as the members of both Colleges seemed to do, the separate interests of the respective Colleges promoted the prosperity of the whole body. (Cheers.)

Nothing which could be done, no organization of any kind, could supply the education of the older institution (hear, hear); while the New College possessed all the ramifications and power necessary for progress. (Cheers.) The corporate body represented the principle of progression—the Old College the principle of educational stability. The Old College was necessary for minors, it instructed pupils for the profession, and in this consisted its usefulness. But after it had instructed them and sent them forth qualified to practise, then the importance of the New College, possessing as it did the property (if we might so say) of expansiveness became evident. (Cheers.) There was considerable difficulty at first in attempting to reconcile the action of the two Colleges, and a great deal of tact was necessary for bringing about that happy union which they all witnessed on that occasion. (Cheers.) And to no man was the credit of bringing about that union so much due as to their president, Professor Sewell. (Great cheering.) In proposing his health he wished to look back some years,—In 1791 the College was founded; St. Bel was its first professor: he was succeeded by Professor Coleman in 1794, who occupied the chair 55 years. In 1799 Mr.



Sewell was chosen assistant professor, and on the death of Mr. Coleman in 1839, was chosen professor. In 1852 he was elected President of the Royal College of Veterinary Surgeons. It would be seen, therefore, that for about a period of 54 years, Professor Sewell had been labouring for the advancement of the profession. The governors of both colleges were satisfied that what their friend did was for the purpose of furthering their general interests; what he did for the pupils he need not tell them; he never abused their confidence, nor in the least promoted disunion; and now that he had grown grey in the service of the profession, did he not deserve their respect and esteem? (Cheers.) He would therefore propose the health of Professor Sewell, the President of the Veterinary College of Surgeons.

The toast having been drunk,

Professor SPOONER returned thanks on behalf of his absent friend. He regretted the necessity which compelled him to do so; and he assured those gentlemen who had assembled to do his friend honour, that if his health had permitted he would have been amongst them that evening. Indeed he had expressed his anxiety to attend, and he (Professor Spooner) was quite certain that his illness was much increased by that anxiety. (Hear.) He (Professor Spooner) had known him for the space of 25 years; indeed he entertained towards him a sort of dutiful affection, for he (Professor Sewell) had taken him by the hand and led him onward in his profession, counselling and encouraging him step by step. (Cheers.) He looked upon Professor Sewell as his best friend, and he was sure that that feeling was fully participated by the members of the profession assembled at that dinner. (Cheers.) He would only add that he thanked them most heartily for the cordial manner they had drunk Professor Sewell's health. (Great cheers.)

"The Governors of the Royal Veterinary College" was proposed by W. Robinson Esq., and responded to by the Chairman.

"The Medical Profession and the Veterinary Board of Examiners" was proposed by the Chairman, and responded to by S. Solly, Esq., F.R.S.

"The Agricultural Society of England," and the healths of the Ex-presidents of the College, the teachers at the Schools, Professor Morton, the Secretary, Mr. Varnell, the Visitors, the Stewards, together with other toasts were then proposed and suitably acknowledged.

Mr. Harker officiated as toast-master, and the musical arrangements were conducted by Mr. Ransford.

CRAMPS OF THE FLEXOR MUSCLES OF THE HEAD  
AND NECK.

By EDWARD DYCEB, M.R.C.V.S. DUBLIN.

DEAR SIR,—I forward you a case which lately came under my notice. It is interesting to young practitioners so far as teaching them that they should perfectly understand the pathological nature of cases which they are called to treat, previous to their attempting any remedial means; for had I not taken the benefit of the doubt from my ignorance of the nature of the case, and had entered into the treatment of what from certain symptoms I had first conceived to be indicative of *cerebro-spinal arachnitis*; I might (if the owner had been present) there being a very great similarity of symptoms, have fallen into a great mistake by informing him that the cure was very dangerous, and little prospect of recovery.

February 26th—I was called on to see a valuable bay horse, six years old, that had for two days previous been treated by me for a slight discharge from the nose and cough, for which his throat was slightly stimulated, and rations ordered of bran mash, with linseed tea, no medicine of any sort, walking exercise, loose box. On arriving at the stable, the groom informed me that the horse had broken out into a sweat, and that he pointed the near fore-foot in a fixed position, and trembled much on it, but that he had fed well, and showed those symptoms after coming in from exercise; on examining the animal I could not observe any of the symptoms described, I got the horse led out, and found him perfectly free from lameness or stiffness.

At four o'clock the same day I was called on again to see the horse, and found him as follows:—his head depressed almost to the ground, his neck and back much bowed, the fore legs extended forward, bent, and very wide apart; profusely sweating on neck and scapula; head slightly inclined to right side, with a constant working round the box to the left. Pulse full and 50; respiration tranquil; drinks water out of a bucket, when the nose can be got into it; attempts to masticate hay. The throat between the jaws very much swollen, and the swelling hard, as if œdematous. The muscles of the neck very rugged, and, on attempting to raise the head, which seems to give great pain, the animal would immediately flex the head and neck between the fore-legs, the nose touching the ensiform cartilage, the fore-legs being advanced as far forward as possible, and flexed to

such an extent that he goes on his knees. A veterinary surgeon happening to be passing by, I called him in, and we observed the case attentively for one hour, speculating on various surmises, such as cerebro-spinal arachnitis, &c.; but never having seen such a case before, consequently being in ignorance as to the means to pursue, and always adverse to speculative treatment of diseases, I left for a short time, leaving my assistant in charge, with instructions to give aloetic injection every quarter of an hour,—which, by the bye, I would recommend all practitioners to have at all times ready made up, viz., consisting of 2 lbs. Cape Aloës dissolved in two gallons of boiling water: the undissolved portion to be mixed with one pint of strong whiskey, and mixed altogether, and bottled for use. I also desired my assistant to note down all the symptoms until my return at seven o'clock; but there was no difference in them, excepting very slight, while the injections were operating. I stood, with hands in my pockets, wondering what the pathological nature of the disease could be. The same symptoms still continued, except in sweating, and the pulse not more than 45. Being desirous of observing the symptoms when the animal's head was raised (if possible) as high as the manger, I directed my assistant, with the groom, to try and effect it. A bucket of water was placed before him on the ground; on attempting to raise his head, so as to enable him to drink of it, on the slightest force being tried, he would, as usual, bend his head under his fore-legs, though, by placing the bucket of water under his nose, he drank with avidity, and could raise his head as high as his knees. I ordered the iron manger to be filled with cold water, and his head by degrees brought on a level with it; to effect which the groom, a powerful man, put his shoulder under his head and gradually raised it up, the assistant at the same time rubbing and patting the neck. By degrees, the mouth was launched into the trough of water, the animal commenced gulping down the water, until, as if by magic, the patient raised his head up to the natural height, and looked about him, shook himself, his head assumed the natural appearance, and he dispatched a bran-mash in fifteen minutes afterwards, and ever since has been quite well. The nature of the disease, of course, was immediately obvious to be *cramps of the flexor muscles of the head and neck*.

DUBLIN; 19th March, 1853.

[\*\* We are sorry we could not introduce the “sketches,” which are very characteristic.—ED. VET.]

## PHLEBITIS.

By JAMES WESTERN, M.R.C.V.S., HORSE ARTILLERY,  
BANGALORE, MADRAS.

DEAR SIR,—In a letter lately received from a nephew of mine, a pupil at the Royal Veterinary College, he expresses considerable interest in a case of Obliteration of a Jugular Vein under treatment, at the time he wrote, by a veterinary surgeon of well-known talents, who kindly assists him with clinical instruction.

As I have, in the course of my practice in India (which has extended over a period of upwards of twenty-five years, without any intermission), had many cases of inflamed vein, and been, I believe, more than usually successful, I have much pleasure in placing before the profession the treatment adopted, which, to some at least, may be new, and which, though simple in itself, I have never found to fail. I must, however, premise, that all my cases originated in venesection, and not in an extensive lacerated wound, as I understand the case to be mentioned by my relative.

The theory of the origin of the disease I leave the younger heads to discuss; for I remember, when a pupil myself, introducing the subject at the then existing Veterinary Medical Association with a most unsatisfactory result.

There is one thing, however, which I do not think is generally known, which is, that when one case occurs with one practitioner, others are occurring with others, as if some temporary constitutional idiosyncrasy, some atmospheric or other hidden agent, were at work, to influence the effect of the simple operation of bleeding.

*Treatment.*—As soon as I find the lips of the orifice pouting and discharging that ichorous serous fluid which always accompanies the disease, I imprint a vertical line with the actual cautery about five inches long and tolerably deep across the gaping wound, exactly at right angles with the line of the phleam or lancet, *budding* the wound itself with the point of the cautery: on each side of this line I draw two others of equal length and depth, parallel, a little more than half an inch apart; and over all spread a good layer of strong blister, which is never interfered with until thrown off by sloughing, and then the parts are merely dressed with simple dressing.

My firing iron (for all occasions) is very sharp, for I find by this I can penetrate deeply without producing ulterior disfigurement.



I have never had occasion to use further treatment than here described, which is simply *doubling what is usually done*. In some instances the vein will disappear, notwithstanding such sharp practice, but not generally.

In a more recent letter from my nephew, he alludes to the successful treatment of some cases of farcy by the Pulv. Cantharidis internally, and the oil locally, in the College Infirmary. Strange that veterinary surgeons in India are debarred the use of Cantharides in any form, because the *Mylabris cichorii*, an indigenous fly, is a substitute for it in the composition of a blister. Should this meet the eye of Professor Sewell, in whom, I believe, is vested the entire management of veterinary medical supplies for India, I trust he will see the necessity of an alteration, and confer a favour on us all here by effecting it; since every practical man knows that Cantharidis is not solely useful as a vesicatory.

Yours truly.

BANGALORE; 6th March, 1853.

## TUMOURS IN THE VENTRICLES OF THE BRAIN.

By T. HURFORD, M.R.C.S., 15TH HUSSARS, BANGALORE, MADRAS.

C. 1629.—LAME off-fore. This horse was brought to the sick lines, reported to have fallen on muster-parade this morning. As I was very much occupied at the time by many cases of fever and influenza, I did not examine him closely; but, as he had been lately castrated, thinking he was weak, I ordered his shoes to be taken off, and a tonic ball to be given, intending to give him rest.

2d. Repeat ball. About twelve o'clock, or half past, (midday) the farrier major came to report that the horse *was down*. And so I found him, with a curious general appearance; convulsive twitchings, &c. I made him rise, and he immediately began to feed; but, in a minute, all four legs doubled up, and he went down again. I set it down for a case of severe "stroke of wind," though the nervous irritation puzzled me. I got him up again, and he walked into a loose box, about one hundred and fifty yards. I applied a strong mustard poultice along the spine about five p.m. Veterinary surgeon Western, to whom I had sent, came to see him: he too could not tell what to make of it. We got him up again, when lo! if ever a horse had laminitis, this poor fellow had. V. S. lbs. xij; setons in both frogs.

Sumat Aloës, 3vij.

Odd to say, the near leg was the lame, or rather the worse now.

*Nine, p.m.* Lying down, and tranquil.

*3d. Six, a.m.* Still down, but in a strange state; great nervous excitement; constantly snapping or biting, and sometimes at imaginary objects in the air; pupils very much dilated.

Sumat Calomel., ʒj; Ext. Belladonnæ, ʒj.

Blister forehead, and seton poll.

Having a case of tetanus in the next box, I left him for a moment, when the farrier came in to report his death.

*Insp. cad.* immediately. A considerable clot of blood in near side of cranium. The coverings of brain very vascular, with vessels tinged; a large quantity of fluid in ventricles; and also in each ventricle a tumour; that in the right with a circumference of about one inch, and in the left of about three quarters of an inch: both attached to the plexus choroides. *The laminae had not a trace of inflammation.*

Under the microscope, they appear to be of a cholesteatomatous nature; and such any one will find in Todd's Cyclopædia, part 30, p. 98, under 'Tumours.'

BANGALORE; March 6, 1853.

## TUMOURS IN THE LATERAL VENTRICLES OF THE BRAIN.

By E. REDWOOD, M.R.C.V.S., DORCHESTER.

THE subject from whose brain the accompanying morbid specimens were taken was a brown cart-mare, six years old, in excellent condition, which, prior to the manifestation of cerebral disease, (on the 4th March, 1853,) was always considered an unequivocally sound animal, and capable of enduring the severest exertion.

I was called to see her on the preceding date, and found her suffering from cerebral symptoms, *i. e.*, *coma somnolentum*. The attack was sudden, while she was at work.

The symptoms were great stupor, partial delirium, staggering walk, either hanging the head in the manger or endeavouring to bore against the wall or any obtruding agent. The history of the case convinced me at once it was not sympathetic disease, but idiopathic, as the animal had had no food for some hours. The pulse was full, but slow; respiration also slow, but no stertor was evinced; eyes amaurotic; the excretions natural

I adopted the usual treatment, such as bleeding, purgatives, blisters, and sinapisms to the head, &c. She quickly recovered, so as in three weeks to resume her work, whereat she continued for several days, when she relapsed, presenting the former train of symptoms. I treated her as heretofore, with the same results; resumed her work a second time for two days, when the symptoms again recurred in a modified form, and gradually progressed until she died this morning. I may mention that I bled twice from the temporal arteries to syncope; but after the second relapse, I said there was organic and irremediable disease of the *cerebrum*. There was no disease of the excito-motory or true spinal system, as the symptoms during life clearly showed by the absence of any paralytic or convulsive muscular action, of either the voluntary or involuntary muscles, until two hours before death.

On examining the brain superficially, much congestion showed itself. The lateral ventricles, when opened, were *completely* filled with two oblong tumours, as large as hens' eggs, but a little more elongated; and at either end of both was an appendage, formed of delicate reticular tissue, distended with serum, on incising which several ounces of fluid escaped, causing collapse or shrinking of the tumours (which, I imagine, as previously stated, are hypertrophied pineal glands,) to one fourth of their original size. They occupied the ventricles precisely as does the heart its pericardial sac; and a little serum existed externally to the tumour.

The appendages appeared to consist of tissue analogous to the false-membranous tissue found in cases of chronic pleuritic disease; all the other viscera were in a normal condition. I instituted the *post-mortem* in ten minutes after death.

Apologising for soliciting your kind attention to this imperfect detail of a case, which if you think worth inserting in your ably-conducted journal, you have my permission to do so.

I have instituted many examinations of diseased encephalons, but until now never met with such a case as the preceding. You will perceive granules of earthy matter diffused through the morbid structure, consisting probably of the phosphate and carbonate of lime.

Awaiting your opinion,

I remain, Sir, your obedient servant.

DORCHESTER; 4th May, 1853.

P.S.—I omitted to mention that on removing the morbid specimens I have transmitted for your inspection, two small cords or peduncles were incised, connecting them to the thalami optici, a portion of which peduncle is now attached: hence the cause of the inference I deduced.

[\*\* These singular productions (singular from the situation in which they were found) appear to us like *fibrous tumours*, perhaps on the eve, from the earthy matters found within them, of taking on a further change. We do not think they can be converted pineal glands, being double, or consisting rather of *two* distinct tumours, filling the ventricles; neither do they seem to be growths or alterations of any other parts of the cerebral substance, but they appear rather as vegetations *sui generis*.—ED. VET.]

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## HYDROPHOBIA IN SHEEP.

By THOS. GUDGIN, M.R.C.V.S., BEDFORD.

DEAR SIR,—There having appeared in your valuable journal two or three accounts of rabies in sheep occurring in the parish of Wootton, Bedfordshire, I beg to offer further information on this rare and interesting subject. I must start with the avowal that I am unable to state whether these sheep were bitten by a dog, as no ocular proof of the fact is established; certain it is, however, that one night in December, 1852, several sheep, belonging to Mr. Whitehouse, of Wootton village, and Mr. Whitworth, also of Wootton, were worried by some animal, and suffered extensive lacerations of the ears, face, and other parts of the body, but principally confined to the head and face. Due inquiries were instituted, but no reliable evidence of the depredator, his antecedents or whereabouts, was in any way obtainable. The wounds healed and cicatrised, and no suspicions were entertained of the dog or other animal which inflicted these wounds being rabid. Nineteen days from the period of attack, two of the sheep were observed to be unwell, and, being in good condition, were at once consigned to the butcher, who dressed them in the usual way for Newgate Market. The following night three more were attacked. A suspicion of the nature of the disease now crossed the mind of the proprietor, and metropolitan stomachs were spared the digestion of rabid mutton. Hearing this report confirmed in all quarters, on the 25th of January I called upon



Mr. Whitworth, who stated to me that he had lost six, inclusive of those dispatched by the slaughterman, and that seven more were affected in the same way, which seven (accompanied by that gentleman) I at once proceeded to examine. Four of this number exhibited symptoms of great restlessness and excitement, such as butting at each other, hunting each other about, attempting the act of coition, at the same time uttering sounds similar to the low bleating noise made by a tup previous to the commencement of such act. At intervals they rubbed the bitten parts against cribs, troughs, hurdles, or any other convenient objects in their way; once or twice they evinced a disposition to eat dirt, and bit the bark off of the hurdle slats; at other times they would hustle together, as if frightened or hunted by a dog; and, upon the whole, their manner was highly excitable and somewhat violent. The remaining three were lying down, apparently very drowsy and very ill. The first thing noticeable about them was an almost incessant licking of the lips and nostrils, of which action the animals scarcely appeared conscious. When a stranger approached they would suddenly start, the stupor vanishing with the act, look wistfully round, and appear to be attentively looking at imaginary as well as real objects; this symptom would soon pass off, the head would be gradually lowered, and the half-comatose appearance again would set in. On examining these animals, I found that the saliva was saponaceous, the buccal membrane of a reddish-brown colour, the Schneiderian membrane highly injected, the conjunctival slightly so; to which may be added that their heads were somewhat swollen. I was told, on inquiry, that in twenty-four hours after the attack commenced they showed no disposition to eat provender of any kind. Previous to leaving, I obtained permission of the owner to institute a *post-mortem* on any two of the affected sheep. The day following I proceeded to Wootton, and found that one had died about ten minutes previous to my arrival, and that another was in the last stage of dissolution. The external appearances of the defunct animal were as follows:—The inside of the hind- and fore-legs much discoloured, and of a gangrenous aspect; the back on each side of the spine also exhibiting patches of the same colour; also around the parts bitten, to some considerable space, shading off into a dull brown tint; the wounds were open, and discharged a dark-brown serous fluid, but no globules of pus were visible in it. *Post-mortem*: on taking off the skin, I found that the afore-mentioned discolorations were confined to the skin and areolar tissue. On opening the abdominal

cavity, the first impression was that the contents were perfectly healthy; a more minute inspection exhibited slight traces of congestion of the peritonæum, and the intestines throughout their course studded with small specks of a sphacelytic character. The inner surface of the intestines and contents were normal. The contents of the rumen were of a semifluid nature, and no indigesta or unnatural food, save the presence of a small quantity of dirt and stones, appeared mixed with it. The mucous coat of this stomach was entirely sphacelytic, and easily separable from the other coats of the rumen; in fact, portions of it were mingled with the ingesta it contained. This appearance, but differing in degree and intensity, was presented by the reticulum and omasom. The 4th stomach, or abomasom, was healthy. Contents of the thorax:—lungs highly inflamed, pleura pulmonalis and costalis acutely so. The heart was also implicated to as great an extent; the left auricle and ventricle were empty, the right filled with black blood; there was also about an ounce of water in the pericardial sac. The trachea and œsophagus were inflamed throughout their course; I could not, however, detect anything abnormal about the pneumogastric or recurrent nerves. The larynx, pharynx, Eustachian tubes, velum palati, posterior part of the tongue, and buccal membrane of the cheeks were violently inflamed, the anterior part of the tongue and back of the mouth exempt. The Schneiderian membrane was of the colour of a piece of red cloth; the frontal sinuses, the membrane lining them, slightly affected. Cerebral cavity:—dura mater much injected; the structure of the brain itself somewhat congested, which congestion was extended throughout the course of the medulla oblongata and four or five inches of the spinal cord. There was no extravasation of blood or serum in the cerebral cavity or spinal canal. I may here remark that this animal was twelve months old, of the masculine gender, and in good condition; the symptoms it had exhibited during life were very violent and excitable; the shepherd assured me it had butted or bunted at him repeatedly.

After finishing the *post-mortem* in this case, I immediately despatched the other, and the appearances displayed by the *sectio cadaveris* were analogous to the preceding, with the exception of greater inflammatory ravages in the abdominal cavity, and decreased evidence of the affection of the brain and spinal cord. This one was of the same age and sex as the last, and during the attack had not been at all violent or excitable in its action, but chiefly kept the recumbent posi-

tion throughout. This latter had been ill five days, and the former six; I was informed that the first that died did not live more than seven days. Thus far brings me to the medical treatment, which consisted in the administration of drinks by a person of the name of Wells, residing at Odell in this county, who is in the possession of a recipe purporting to possess the power, when properly compounded, of curing this malady. I do not know how long this family have been located at a public-house in the said village, which house is graced by a sign on which is depicted a mad dog, and a very rabid, raging-looking animal it is, executed, no doubt, by some village painter, possessing pre-Raphaelite ideas. The senior M.D. of this family lately died, but the mantle of Elijah has descended upon Elisha, our present subject. The derivation of this family is not definitively traceable; possibly they claim descent from the ancient family of Psyelles. This person journeyed to Wootton and proffered his services to Mr. Whitworth, which were accepted. In due time this preparation, as effective and curative as the famous balsam of Fierabras, was administered to four rabid sheep, which subsequently died. Two more, the remainder of those bitten, but which as yet had not shown symptoms of rabies, were drenched three mornings consecutively. Why it should be three I know not, unless there's luck in odd numbers. These were afterwards attacked, and died also. After this (*un?*) successful commencement, he (Wells) advised the owner—for reasons too obvious to mention—to have the whole flock drenched, including the shepherd and, to “make assurance doubly sure,” the worthy proprietor himself!—which advice was acted upon and fully carried out. No more sheep died after this wholesale treatment.

*Remarks.*—Mr. Whitworth lost 17 sheep, Mr. Whitehouse 18; the earliest period of attack was 19 days, the latest five weeks; they lived after the attack set in from five to seven days. I am of opinion that there is nothing of a preventive, much less of a curative, nature in this drench. As, from the nature of the woolly covering of this animal, by the time 17 or 18 had been bitten, the dog's mouth would be pretty well free from saliva, the fact of 17 of Mr. Whitworth's and 18 of Mr. Whitehouse's becoming rabid, in a manner corroborates this opinion. Admiral Tremlett was written to, but there was no opportunity afforded of exhibiting his remedy. With some of the saliva from the living rabid sheep I inoculated three dogs, which I kept confined seven weeks; no symptoms of rabies manifesting itself in that time, they were destroyed—further negative evidence that the saliva of graminivorous



animals is incapable of producing it in carnivora, at least by inoculation.

I am, Sir, yours very truly, &c.

BEDFORD; 13th May, 1853.

[\*\* We shall be at all times most happy to hear from Mr. Gudgin.—ED. VET.]

### EPIDEMIOLOGICAL SOCIETY.

DEAR SIR,—A short time since, I filled up a circular that I received from the Epidemiological Society, respecting the pleuro-pneumonia in cattle: the answer I sent to one of the queries, I wish to correct, through the medium of your Journal, as I quite forget the Secretary's address. The question I refer to is, *whether diarrhæa is a concomitant symptom in pleuro-pneumonia*, or words to that effect. I replied in the *negative*, in regard to my own observations; since then two cases have occurred in my practice, and recently, which terminated fatally. The cows were in a shed when attacked, and had been fed on good sound hay, and slept perfectly clean; an easterly wind prevailed some time before they sickened, one cow had calved six weeks previously, and had in addition to the usual symptoms painful distension of the rumen, immediately after eating a little hay. This I attributed to the great increase of the size of the lungs from engorgement of blood, pressing on the œsophagus, diminishing its calibre, and preventing the return of food to be remasticated, hence the accumulation of gas, &c. in that viscus. The other, an old cow, was barren and dried preparatory for feeding, *purged excessively*, strained violently, voiding blood and mucus. However, before the grim tyrant closed her earthly career, their symptoms were abated by the administration of opiates: they both died in an exhausted state after about five weeks' illness.

*Post-mortem Appearances.*—Lungs enlarged, hepatized, and contained several small abscesses.

I trouble you with this communication thinking it may catch the eye of the Secretary to the laudable Society before alluded to,

I am, dear Sir,

Yours respectfully,

JOHN TOMBS, M.R.C.V.S.

Late Bengal Horse Artillery.

STRATFORD-ON-AVON; 11th May, 1853.



P.S.—I am truly delighted to find that the Professors of the Royal Veterinary College, London, co-operate so kindly and energetically with the Royal College of Veterinary Surgeons, which I trust (now the long alination has ceased) will at no distant time be of benefit to the whole profession, particularly if the noble suggestion of Mr. Mayer be carried out, viz. that of inflicting a fine upon impostors who arrogate to themselves the title of V.S.

[\*\* We must erase one more blot from the escutcheon of the Royal College, and then we shall be *sine cerâ*.—ED. VET.]

### MAJOR'S "BRITISH REMEDY."

By THOS. GREGORY, M.R.C.V.S., TUNBRIDGE.

SIR,—In compliance with a request from you, I send the particulars of cases mentioned in your April number of 'THE VETERINARIAN.'

CASE I.—A brown cob, fifteen hands high, well bred, and free in harness, the property of Mr. S. Dickenson of this town, post-master, &c. ; has a spavin on each hock, for which he has been fired, and of which he is lame on the near hind leg, *at starting*, though after being driven a mile, he *goes sound*. "Major's Remedy" was applied, and attended to as before stated in my last letter, and at the expiration of three months (having been previously prepared) the horse was sent to me to drive in harness, that I might have an opportunity of judging as to the good or bad effect of the *application*. I used him for a fortnight, and found him *lamer than before the application* of the "Remedy" (?), and he has continued so up to the present date, never going sound during any part of the journey, as formerly.

CASE II.—A black gelding, sixteen hands high (the property of Mr. E. Eggesden, Sussex Hotel, Tunbridge Wells,) used for posting and black work, is very lame from a spavin on the off hock, which I *had*, twelve months previously, severely fired and blistered. This horse underwent the same treatment as No. I.

CASE III.—A black Flemish gelding, fifteen hands high, purchased by Mr. Eggesden (of Mr. Masters, wine merchant, in this town), *expressly for a trial of the "Remedy."* He has a spavin on *each hock*, but *had never been under treatment for them*. He was prepared by physic, &c., and treated in the same manner as the other cases. I have seen this horse and

Case No. II to-day, *in work*; they are both *still very lame*, and will, in my opinion, never be sound from the operation of the "Remedy:" added to which, all the cases are *much blemished* from the application of *cure for spavin, &c. &c.*

It is useless to say more about these cases, since they speak for themselves. I consider each case to have had a fair trial, and, if Mr. Major is dissatisfied, or fancies otherwise, either or both of Mr. Eggesden's horses *are at his service, for treatment*, if he likes to *pay their expenses* to London, and to keep the horses *free of charge* at his infirmary: *when cured*, Mr. Eggesden will fetch them home.

I am Sir,

Your obedient servant.

14th May, 1853.

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SMART v. MAUNDER.

*To the Editor of 'The Veterinarian.'*

DEAR SIR,—When I sent off the *Bristol Mirror* newspaper, I expected to have followed it up with a correct report of my evidence, and the summing-up of the Judge, as I had the promise that the reporter of the *Mirror* should report it very particularly, for which I was to pay; but, unfortunately, he omitted doing so,—I will however send you a copy of my certificate, with the leading features of my evidence, and the summing-up of the Judge, Mr. Crowder, Queen's Counsel, and Recorder of Bristol.

Having examined the foot of a dead horse for Mr. Smart; this is to certify, that it is quite clear to me that it was injured or pricked in shoeing, and afterwards, by mal-treatment. I am absolutely certain that the horse was cruelly treated.

Given under my hand this 18th day of February, 1853.

JOHN KENT, *Veterinary Surgeon, Bristol.*

I stated, in my evidence, that a skilful practitioner would have discovered the injury, and known that matter had formed, and would, by paring away the sole, have let the matter out at the bottom of the foot. That my opinion was founded on the matter having spread underneath the horny sole, nearly one half of which was separated. That, for want of an opening in the bottom of the foot, it (the matter) had made

its way out at the top of the hoof, accompanied with extreme tumefaction and pain. That very great want of skill was apparent in the separated horn not being removed, and that there was clear evidence of unskilful and cruel treatment; besides which, there was a large slough, or what farriers term a *core*, coming out of the orifice where the matter had made its way out, which I felt sure was the effect of some caustic dressing, such as arsenious acid or bichloride of mercury, being introduced. That it was by no means difficult to find out when matter was formed in the foot, or, in other words, when suppuration had taken place; and that a skilful practitioner would pare away all the horn, hoof, and sole which was separated from the living and sensible parts, which the foot in court was full of, and so afforded clear proof that such had not been done.

The Judge in summing-up, stated to the jury, that every professional man and every mechanic was bound, by law, to bring into operation all the science and skill of his occupation; so that if a carpenter spoiled a door or other piece of carpentry, either through his incompetency as a workman, or his carelessness, he was responsible for the injury sustained by his employer, and that a veterinary surgeon was in the same position. That, if Mr. Kent, with his science, had been the defendant in the present case, with exactly the same evidence against him, such evidence being conclusive that the case had not been scientifically and skilfully treated, the jury would have been bound to find a verdict for the plaintiff for damages and costs; but that in the present case the defendant was *not* a veterinary surgeon, but only a farrier; and that as such he was not bound to bring science or skill, and that, to make him responsible, it would be necessary to prove that he did not treat the case in the best manner he knew how. That no matter how ignorant the man, nor how bad his treatment, it was enough *if he did his best*. That it was in evidence that he did not neglect the horse; that he was but a farrier, and that they who choose to employ farriers to doctor their horses must take the consequences.

Had I been a jurymen, and believed that what the judge stated was law, I should have given a verdict for the defendant.

The defendant was some time a shoeing-smith to friend Withers, and I think rather a pet, but now boasts that Jack can beat his master in curative performances, and according to our worthy recorder and judge in the Bristol Tolzey Court, enjoys a release from and protection against responsibility, which is not extended to the V.S. or M.R.C.V.S.

Thinking this statement may be of some service to the profession, I forward it to you to publish it or not.

Yours truly,  
JOHN KENT.

BRISTOL; May 17th, 1853.

# CORRESPONDENCE.

*To the Editor of 'The Veterinarian.'*

DERBY, VICTORIA STREET;  
May 18th, 1853.

DEAR SIR,—At our last Annual Meeting, Mr. Turner suggested that the names of the members of the Royal College of Veterinary Surgeons, should appear once or twice a year in the columns of the 'Times,' but the expense being considered too great, the idea was not entertained.

It having since occurred to me that as the members of the Royal College of Surgeons, on obtaining their diplomas, enjoy this publicity (free of expense), I addressed a letter to the Editor of the 'Field' newspaper, of which I beg to enclose you a copy, and of his reply, doubting not but that you will place it in the proper channel to accomplish so desirable an object.

I am, dear Sir,  
Yours obediently,  
THOMAS TAYLOR.

*To the Editor of the 'Field.'*

SIR,—Seeing constantly in your paper the names of those gentlemen who have obtained their diplomas at the Royal College of Surgeons, London (the 'Field' professing to devote a space to Veterinary matters), I would suggest similar notice respecting graduates of the Royal College of Veterinary Surgeons.

I am, Sir,  
Your obedient Servant,  
THOMAS TAYLOR.

May 14th, 1853.

*The 'Field;' or Country Gentleman's Newspaper.*

The Editor of the 'Field' presents his compliments to Mr. Thomas Taylor, and would be very happy to insert the names of the graduates in Veterinary Science; but how are these to be procured? If obtained, they certainly shall regularly appear under the head of "Medical," as suggested by Mr. Taylor.



## REVIEWS.

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Quid sit pulchrum, quid turpe, quid utile, quid non.—HOR.

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*Traité de Maréchalerie Vétérinaire; comprenant l'étude de la Ferrure du Cheval et des autres Animaux Domestiques, sous le rapport des défauts de l'Aplomb, des Defectuosités, et des Maladies du Pied.* Par A. REY, Professeur du Clinique, Pathologie Chirurgicale, Jurisprudence, et Maréchalerie à l'école Vétérinaire de Lyon. Lyon, 1852. 8vo, pp. 498. Intricalée des gravures.

*A Treatise on Farriery; comprising the Art of Shoeing Horses and other Domestic Animals, in relation to defects of Aplomb, Malformations, and Diseases of the Foot.* By A. REY, Professor of Clinique, Surgical Pathology, Jurisprudence, and Farriery, at the Veterinary School of Lyons. Lyons, 1852. Illustrated with woodcuts.

(Continued from p. 258.)

WE broke off in our "Review" last month, in considering the principal evils attributed to shoeing; we have now presented to us certain "*inconvenients*" occasioned by the operation, the greatest of which is the constriction of the foot. To remedy this M. Rey says, that we (English) after the plan introduced by Mr. Turner, make use of the unilateral shoe, a shoe in use in France for a long time by the name of *ferrure à la turque* (Turkish shoeing), for horses who cut. And this shoeing is still practised in France, though upon too limited a scale to pronounce what its general adoption would amount to.

After all that can be said against nailed shoes for horses, however, M. Rey comes to this conclusion:—

"Let us conclude that it is a practice we cannot do without: a conclusion founded principally upon the immense service we owe to it. And when we come to compare the number of horses so shod, employed in the most laborious work, with the rarity of accidents occasioned by shoeing, we

are driven to ask the question, what better mode of shoeing horses can be devised?"

The next chapter, the XVIth, treats of *pathological shoes*, *alias* shoes destined for diseased feet.

"Of many shoes contrived and recommended for such purposes, the number really useful is reduced to four, viz. the three-quarter shoe; the shoe for punctured or diseased sole; the shoe with a plate to cover the sole, partially or completely, which may be made with a hinge, or else for the plate to slide; and (fourthly) the bar-shoe."

Besides enumerating several varieties of these four admittedly useful pathological shoes, many others of doubted or denied utility are added to them, making on the whole a total number of shoes for diseased feet calculated hardly less to excite our risible faculties than our feelings of surprise, how human invention could be stretched to such a point!

Nor do we make an end of divers kinds of shoes here. For, in the following, the XVIIth chapter, we have descriptions of "shoes designed to remedy deformities of the foot;" shoes with much cover, with half-cover, with little and with irregular cover; shoes for protecting corns; shoes regularly and irregularly punched; shoes to fit all feet, either with or without hinges; shoes without nails.

Added to which comes, in the XVIIIth chapter, "shoes designed to remedy defects in the *aplomb*," or standing of the horse.

Quitting the subject of horse-shoes, *en verité*, we come to the chapter (XXIV) treating "of the means employed to subject horses to the operation of shoeing." According as they are timid, unruly, or refractory, will horses require difference of treatment; the means of restraint last to be resorted to being severally, the halter of constraint; the twitch; the barnacles, either in iron or wood; the side-line; suspension in slings; casting.

Succeeding this is a chapter (XXV) "on the diseases of the foot resulting from shoeing." "These may be divided into such as require time for development, and when they do become apparent, prove to have their seat in the superior

regions of the limb. The others are the immediate result of shoeing ; but which, notwithstanding their seat in the foot, do not make their effects known for some days afterwards. Of the latter, again, some proceed from the driving of the nails ; others are said to arise from the inconsiderate application of a hot shoe to the foot ; while others, again, may have their origin in the use of the butteris ; the French not using the drawing knife. Since the majority of lamenesses owe their origin to shoeing, the practice is a good one of making a point in all cases to remove the shoe from the lame foot. Lesion, however, may be found in the foot, when the seat of lameness may prove to be in one of the upper joints of the limb. The diseases we are about to examine into are pricked foot, false nailing and splitting of the point of the nail, foot-bound through nailing, foot-bound through the shoe, too much heat applied to the sole, burnt sole, wounded sole, and wounded frog."

Such is a recapitulation of the contents of the chapter, with sufficient insight into them, perhaps, to show, that the views entertained of the diseases incidental to the horse's foot are not altogether in exact accordance with our own. When we speak of "foot bound" and "foot burnt," a good deal must depend for the stability of such views on the opinions entertained concerning the physiology of the foot. We hear of shoes being "drawn on too tight," and of horses "going ill" in some shoes, and "well" in others, all which shows coincidence of opinion ; but when our author begins to talk about *burning* of the sole, and *burnt* sole, as one of the evils shoeing may bring on, we hardly know how our views of practice will tally with his, or rather his country's. We remember an occasion on which this question was mooted, on the authority of government, to be solved by Military Veterinary Surgeons, there having been some complaint made on the score of injuring horse's feet by the *application of red-hot shoes to them* ; when the answer returned was, that there were no rational grounds, in the ordinary practice of shoeing, for preferring such a complaint."

This section of our work concludes with—

*The responsibility of the Farrier in relation to accidents  
accruing from shoeing.*

“In France, by the article 1382 of the Civil Code, it is ordained, ‘That whosoever shall cause damage to another, is compelled by law to repair such damage.’”

Is this article applicable to the farrier, who, in shoeing a horse, shall, through one or other of the mishaps described in this chapter, lame the horse?

There cannot exist the least doubt about it.

“But, in order that such law may have reasonable application, it is requisite that such mishap or injury have arisen from *negligence* or *imprudence* on the part of the farrier, and not from circumstances over which he possessed no control.

“Neither is the smith liable when lameness has resulted from shoeing a horse whose foot is a deformed one, and difficult to shoe.

“But, let the smith pay the penalty of his misconduct if he has driven his nails faultily into a horse’s foot, which is a good one, or has burnt the sole of the foot, so that the horse is laid up for some time without being able to work, or has succumbed under it.

“Often at Lyons have the justices of the peace and the civil tribunal given the article 1382 this intrepertation.”

In Chapter XXVI we have “Means proposed for the conservation of the hoof.”

“Independently of the resources furnished by Shoeing,” says M. Rey, “for the conservation of the hoof, there are means furnished through *hygiène* as well as through medicine, with which we ought to be acquainted, because they exert a sanitary influence on the nature of corn.”

This last clause in the above sentence is precisely the one we have a great desire to arrive at the truth of; since it is matter of great doubt, whether we really possess any power at all of benefiting the hoof in this way; one great proof of which is, the very little use that is made of *hoof ointments*, and various other applications recommended for the purpose. We do not believe that any man would make much by quacking about hoof-ointment, to make the horn grow or to supple it, since the subject is one difficult of demonstration as it is, about which there reigns a very great



deal of doubt and incredulity. The vulgar notion is, that horn like vegetable matter, shoots from the surface, and, consequently, that to promote such growth, it is sufficient to anoint or irritate such surface: people in the ordinary way not dreaming of such a thing as *secretion*, or supposing for a minute that living horn, though nowise organised, has not the power of reproduction in itself.

So far as the horn, to the exclusion of that which produces it, is concerned, we do not believe that anything tends more to foster and encourage its growth and well-doing than taking care to cover up and close the pores through which escape and evaporate its nutritive juices; nor do we believe that anything artificial tends more to accomplish this than the natural external layer of the horn itself, which the smith, in his officiousness, takes great care to remove in the process of shoeing, by way of adding neatness or finish to his job.

Oil and oleaginous compounds may penetrate dead horn, and supple or soften it, but will *living* horn admit of its penetration? will it not rather resist its influence? and do not such unguents and pastes as are applied to the hoof rather produce their suppling effect by plugging up the pores of the horn, and so arresting the efflux of its natural juices, than by entering such pores or any interstices themselves? Among the various nostrums recommended, with such names attached to them as Bourgelat, Bracy Clark, Vatel, Delafond, &c., our author informs us that there is no lack of such as impart *suppleness* to the hoof; but that discovery has as yet introduced nothing to augment its *density*.

Among the pharmaceutical means, M. Rey holds anything in little estimation which does not contain *turpentine*, this substance having *beaucoup d'efficacité*. We can understand how turpentine, from its known peculiar property of stimulating the skin, may and does excite secreting action, the same as ammonia, or any other stimulant would do; but we question that its beneficial operation extends further than this. Here we shall now break off, on this subject at least, expressing nothing further than a wonder that M. Rey should have soiled really a scientific and useful treatise on shoeing

with such a farrago of recipes for hoof ointments as he has introduced into this section of his work.

The XXVIIth chapter treats on *podometric* shoeing; i. e., shoeing by the use of an instrument to take the measure of the foot, and so substituting cold for hot shoeing, or, in other words, doing away with the use of the fire or forge. This, however, though a subject of acknowledged interest, is one which we so fully dilated on, not very long ago, in this journal,\* that we hardly deem it requisite or prudent to re-enter upon it here. We shall, therefore, proceed to the last chapter on which we shall have anything to say (the XXVIIIth), describing "The methods of shoeing practised in various foreign countries." This is an inquiry, as M. Rey observes, not only interesting on account of the strange diversity presented in the course of it, but one which concerns us in a scientific point of view, in seeking what knowledge we can gain by instituting a comparison between the different systems of different countries.

Tartars, Ethiopians, and Japanese, make use of no horse-shoes whatever; while with such people as do now use them, a convenient classification is made of their varieties into—

A. Fullered shoes, used by English, Hanoverians, and Danes.

B. Stamped (unfullered) shoes, used by Germans, Swiss, Italians, Spanish, and Portuguese.

C. Shoes united at the heels (circular shoes), used in Arabia, Morocco, Turkey, and Transylvania.

Either M. Rey must have dived into the most countrified part of our country for his specimen of an English horse-shoe, or he must have rummaged up one in his own or somebody else's antiquated collection of shoes, to have found such a one as, according to him, constitutes our national horse-shoe. He informs his readers, "that it is a fullered shoe, without *ajusture*, convex externally, in such manner that, when placed upon the ground, it presents an inclined surface from exterior to interior rim, which is the lowest one. This occasions the weight to be thrown upon the internal rim, while the crust

\* VETERINARIAN, vol. XXIII, p. 90.

resting entirely upon the external one, the consequence is that the body is sustained by the nails and rivets of the shoe. The edges of the shoe are in a great measure under-hammered (*sous-martelées*), so that the lower surface is too large for the foot, and so often occasions cutting."

This last sentence (in which the English word, *under-hammered*, is introduced by himself) is not altogether intelligible to us; though the latter part of it is sufficient to show, to what wretched quarters he must have gone for his specimen and description of English shoeing.

"In England, every farrier has always on hand three or four thousand horse-shoes ready forged. This puts one in mind of the dépôts of the (human) shoe-makers in Paris, where a customer is sure to meet with a fit."

M. Rey remarks upon one man, instead of two, being engaged in paring our feet and nailing on shoes, and admits that such is an easier operation for the horse; but is silent as to the advantage of one man doing the work of two. He also admits the readiness with which feet are pared out with a drawing knife, an instrument they call *couteau Anglais*; though he says it is insufficient when there is a great deal of horn to remove, their instrument (the butteris) being then required. He adds, that the English run to the extreme in paring feet; that they thin the sole and frog even to the point of bringing blood, and that he who can do this without actually wounding the sole passes with us for the most expert smith. This last observation is not without truth.

\* Having said thus much of our own country shoeing, we have left ourselves no room to enter into any sufficient account of the methods pursued by other countries. For them the work itself must be consulted by those conversant with the French language. We have shown that the work is a very comprehensive and instructive one. The only one that will bear a comparison with it, in our own language, is Goodwin's, and that falls short of it in systematic detail. Few of our own veterinarians could have composed such a work: most of them, in the attempt, would, in the detail of the smith's workshop, have sadly lacked the *practical* knowledge

hardly to be expected to be found in any person but a working smith: saving it be a French V. S., who, by education, is compelled to acquire it. M. Rey exhibits this *savoir-faire* in a conspicuous degree. He has shown himself, in his work, a *blacksmith* as well as a veterinary surgeon.

## Foreign Department.

EXTRACT FROM THE COMPTE-RENDU (REPORT) OF THE  
TRANSACTIONS AT THE ALFORT SCHOOL DURING THE  
SCHOLASTIC YEAR 1851-52.

### *Clinical Chair*—NEUROTOMY.

DURING this year this operation has been performed in many and various cases, with the especial view of palliating the consequences of navicularthrititis. We deem it, therefore, not out of place here to call to mind the indication of neurotomy, together with the general rules which ought to direct the practice of it.

Neurotomy is indicated whenever the foot becomes the seat of chronic disease, productive of pain, and consequently of lameness, existing without the accompaniment of any material alteration in the orgasm such as would oppose mechanical obstacle of an insurmountable kind to the functions of the foot, as part and parcel of the locomotive apparatus. To demand neurotomy, *pain* must be the essential element in the complaint; and from this pain the lameness result, and not from any physical alterations disease may have produced in the foot.

Against no other kinds of lameness is neurotomy effectual\*: it is therefore vain and useless to pretend to employ it against lamenesses which must for ever exist, even after the cessation of all pain in the part. Such, to us, appears the base upon which the practice of neurotomy must mainly repose.

This being the case, however, does it necessarily follow that neurotomy is to be at once had recourse to? By no means. Neurotomy can, as a remedy, be regarded in no other light, than as one of *extremity* in the case. As general rule, recourse should be had to all other means, medical and surgical, as well as to the practice of shoeing, before any steps be taken towards neurotomy: it being at all times advisable to administer to the cure through other channels



than to resort to neurotomy, which must ever be looked at as the *ultima ratio* of practice—the last of our resources. The disease to which it appears to be especially suited is navicular arthritis, which may be regarded as one of the most formidable to which the foot is liable.

Obscure in its cause, mysterious in its progress, not understood as to its proper nature, it is essentially characterised by this process, viz. the gradual obstruction, through the means of *dry ulceration*, of the navicular bone and the aponeurotic expansion of the tendon playing over its surface. In this it differs remarkably from analogous diseases of synovial cavities, both articular and tendinous, wherein we observe such destructions of the articular surfaces to be uniformly accompanied by a profound modification of the functions of the synovial membrane, which becomes transformed into a pyrogenic surface, whose secretion bears a proportion to the intensity of the ulcerative action. But it is not so in navicular arthritis. Thus, the synovial secretion, instead of becoming augmented under ulcerative changes that take place in it, dries up completely from the very time the disease commences, leaving the ulcerative process to extend over *dry* surfaces. We never find either altered synovial secretion, or even pus, within the synovial sheath, though the altered structure of the bone and tendon be in the most advanced stages. Does not this want of secretion seem to imply that the navicular disease is of another order, and that it proceeds from some other cause than inflammation? What, then, is the nature of the navicular disease?

Anatomy shows us that when the disease has been of very long standing, the under surface of the navicular bone displays that sort of perforation as though it had been punctured with an awl, some of the poles being as large as pins' heads, others of the magnitude of lentils, while others range between the two sizes. These perforations run nearly perpendicularly, and penetrate through the thickness of the cortical substance of the bone. The bones are studded with granulations of the buttony character, small and rosaceous. They abound most upon the *central* part of the bone, where they destroy the middle eminence in several places; so that, the further we go from this eminence, the smaller and fewer become the ulcerations. Whenever they exist in great numbers, and are close together, the bone becomes much diminished in weight through their excavations, and may be reduced to such a state of tenuity, through loss of substance, as to *break* under efforts of pressure in rapid locomotion.

The white fibrous bed upon which the navicular bone re-

poses, likewise diminishes sensibly in its substance : a loss which would appear to be referable to defective nutrition, as well as to the desiccation of the tissues in general entering into the composition of the navicular sheath. It is immediately contiguous to the ulcerations that this thinning process is going on, where the cortical surface of the bone, being completely bared, exhibits the polish of ivory. Between these ulcerations, and beyond the central part where they are so numerous, we observe, across the thinner part of the enveloping tissue, small red lenticular spots, which exhibit their counterparts through the depth of the osseous tissue. These small spots, according to writers on this subject, are the first indications of ulceration. This is possible and admissible enough ; but it is difficult to confirm this induction by post-mortem inspection, since the occasions of dissecting animals dying with such disease on them in the incipient stages are not very frequent.

The ulcerations upon the navicular bone serve, on occasions, as points of implantation for bundles of fibres, detached longitudinally, from the superior surface of the plantar aponeurosis, in the manner of shreds from bark which one has just stripped off twigs of green wood. In these cases, the tendon of the perforans is divisible upon its internal surface, as it glides over the pulley-like one of the navicular, into several irregular needle-like shreds, of unequal size, which seem to insert themselves into some of the points where the bone is roughened and eroded by the ulcerations.

The expanded tendon of the perforans becomes so attenuated that it is reduced to a thin membrane, which now and then breaks at its insertion into the navicular. The remarkable alteration taking place in this disease is *atrophy* of the tissues, showing itself by dry ulcerations of the bone, and arriving at such a height that the bone itself becomes sensibly reduced in volume, and thin to a degree to be on the point of breaking, and the aponeurosis to become absorbed. How comes it there should be here such a difference in the regular procedure of things ? Hitherto this has puzzled us. Be it as it may, it is clear that a disease presenting itself with such characters is superior, in the immense majority of cases, to every effort art can employ to restore the nutritive action to its normal rhythm, though neurotomy is the last resource the Veterinarian ought to have recourse to : not with any view of curing the disease ; but, at smallest, to palliate its effects, and render once again, for some months at least, useful, an animal who, but for such an operation, would be altogether unfit for anything.

The symptom so characteristic, *pointing*, is not absolute; though it becomes almost so in the absence of any other visible cause for the lameness. Where the animal has the disease in *both* feet, which is rare, he points, alternately, first one and then the other foot.

Lameness makes its appearance, in navicularthrititis, sometimes instantaneously. The horse falls lame all at once, like one who has sprained a tendon or picked up a nail.

When the disease attacks both limbs at once, it is not always, so to speak, expressed by actual lameness, but by a sort of short stepping (*raccourcissement*) in the fore limbs; and this shortening of action is the more perceptible as the animal in whom it exists has his shoulders at liberty, and stamps the ground in action more than when sound: his shoulders become cold and stiff (*froides*), as is vulgarly said. This *froideur* (shoulder-stiffness) goes off with work, and the horse recovers his powers; though by degrees, after a time, under his continued work, the first symptom, which had at the time something ephemeral about it, grows confirmed; and now it becomes permanent, continued, or intermittent, or with various degrees of intensity, first one foot and then the other, or both feet at a time.

Exploration of the foot, on the first attack of navicularthrititis, ordinarily discloses nothing which can be considered as specially indicative of the disease. There is nothing, either in the exterior form or aspect, or colour of the horn, or dimensions of the hoof, *or in the heat*, or sensibility appreciable by pressure or percussion of the horny box, which indicates that the enclosed parts are the seat of such grave alterations as we have described. This absence of every kind of physical or physiological symptom emanating from the horny box, may be regarded as sufficiently characteristic of itself; since, in point of fact, one discovers little in the navicular disease to account for the *permanent* lameness, and, above all, for the *pointing* of the foot, which would indicate pain in the plantar region.

A horse crippled in both fore-feet from this disease, cannot move forward his fore-feet in consonance and degree with his hind, and the consequence is *desharmonie* between the two pairs of extremities. This movement the English call *grogginess*, wishing thereby to express going such as is caused by drunkenness; but the gait of the groggy horse is not the unsteady vacillating walk of a drunken man; but, on the contrary, is very energetic, and if the machine does not obey regularly and entirely the impulsion it receives, that is owing to the structural alterations which interfere with the functions

of two of the moving apparatus of the machine, the anterior columns supporting it.

From what has gone before, it thus appears—

1. That the characteristic of this disease in its incipient stages, is the absence of every kind of physical alteration, externally appreciable, to which we can refer, as a satisfactory cause for them, the *pointing* and the *intensity of lameness*.

2. That later in the disease, without however heat being constant, the hoof betrays, perhaps by exterior circles (rims) around it, perhaps by contraction of it, or by corns, the disease deeply buried within it.

3. That to these physical symptoms, which possess great diagnostic value where they exist, may be added, as direct effects of the navicular disease, either exterior deviations of the fetlock joint, the consequence of alterations in the suspensory tendons, or atrophy of the muscular masses, superiorly, of the limb.

4. Lastly, at a very advanced stage of the disease, the difficulty the fore limbs experience in action mark the paces of the animal with a gait altogether pathognomonic, characterising the navicular disease in so distinct a manner that it is impossible to confound it with any other affection.

With these different points of diagnosis before us, we are going to point out, from experience furnished us of late years, what the results of neurotomy are practised at different stages of the navicular disease.—*Rec. de Méd. Vét., Nov. 1852.*

(*To be continued.*)

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## Home Department.

### ON THE COMMUNICABILITY OF ASIATIC CHOLERA TO DOMESTICATED ANIMALS.

BY J. MARSHALL, F.R.C.S., &c.

(*From the British and Foreign Medico-Chirurgical Review,  
for April, 1853.*)

VARIOUS animals, such as the dog, cat, rabbit, guinea-pig, goat, and common fowl, have been employed in these experiments, but the dog more frequently than any other. The method of inoculation has also varied. In some, the blood of cholera-patients, drawn during life, or the blood taken after death, has been introduced, with or without delay, into wounds in the cellular tissue beneath the skin, or directly into the veins of the animal operated upon; in



others, the vomited or dejected matters have been introduced into the subcutaneous tissue, into the veins, or into the alimentary canal; lastly, animals have been made to breathe an atmosphere charged with the exhalations from cholera-blood and cholera-dejections.

It will be found, as we proceed, that the earlier experiments of the Russian, Polish, French, and Italian physicians were objectionable or fruitless; but, at least, we feel entitled to promise our readers, that those more recently performed have yielded more striking results, and possess certain claims to serious consideration.

To some, indeed, it may probably appear that such an inquiry must be wholly unprofitable to medical science. The pure contagionist, for example, might object, on the one hand, that the failure to extend the cholera by direct inoculation from man to animals would avail nothing against his theory of contagion, since cholera may be essentially a human pestilence; and, on the other hand, that even the production of a like train of symptoms in animals, would not significantly add to the reliable evidence of contagion already derivable from observations on the onslaught of the disease upon communities of men. To the pure non-contagionist, also, this experimental inquiry may seem, *à priori*, to be utterly futile; for if genuine cholera did occur in the creatures submitted to experiment, might it not possibly be referable to the epidemic influence prevailing at the time; whilst a negative result would but imperfectly support, by a questionable analogy, the views already deduced, in reference to man, as to the non-communicability of the disease from one individual to another? Lastly, by those who are induced to conceive that cholera, though essentially epidemic, may be contingently contagious, or essentially contagious while only contingently epidemic, each of the foregoing objections might in turn be urged against either positive or negative results.

To the very obvious objection, that animals, even the nearest allied to man, differ so from him that no safe analogy can be drawn between them in regard to morbid phenomena, it may be responded, that the structure and economy of the higher animals render them liable to diseases, simple, contagious, or epidemic, more or less like those of the human species; that similarity of diet and community of abode especially approximate some of the domesticated animals to man; and that certain specific diseases, the catalogue of which future inquiries may extend, are really, though with difficulty, capable of transmission from one to the other, though they may undergo modification in their transference.

### I. *Natural Effects of Cholera on Animals.*

In briefly reviewing our accumulated knowledge of reputed natural effects of cholera on the higher animals, we would, in the first place, dismiss, with the most passing notice, the numerous conjectures which are to be found in professional as well as non-professional records, as to the relation between the cholera and recent great and widely-spread epizootics, which have occurred, in almost every country, either before, concurrently with, or after the invasions of the human pestilence. The widest and best known of these have been either influenza-like, catarrhal, dysenteric, or pustular in their character, and are identical with visitations previously well understood. The pleuro-pneumonia which has raged on the continent, and, since 1838, in this country, as so fatal an epizootic, and the typhoid disease of modern date, cannot by any but the most rude analogy be associated with human cholera.

In the next place, we would advert at somewhat greater length, but with equal reserve, to certain more partial or distinctly localised epizootics, which have been noted in districts or towns of India and Europe, contemporaneously with the human pestilence. Thus, in the Marquis of Hastings' army, in 1818, on the banks of the Sutlege, great numbers of oxen are said to have died, during the prevalence of cholera, suddenly, and from unknown causes. In the hilly districts, according to Chalmers, cholera being then very fatal in the towns, cattle died even in a greater ratio than the people. In Rajpootana, according to Ranken, camels, and especially goats, died of diarrhœas and other ailments; and, on the authority of Mr. Searle, the same thing occurred in the Madura and Coimbatore districts. The disease among the poultry, in Mr. Searle's compound, may also be noticed here: and we are informed, by an intelligent officer in the Indian army, that in 1832, at Rajahmundry, on the Godavery, all his ducks and geese died, with symptoms, which he and his native servants supposed to be truly choleraic. In Calcutta, in 1827, numbers of dogs died in the streets with choleraic symptoms; at Charcolly, also, fifteen-sixteenths of the dogs perished in the same way, during a second visitation of the disease; and at a later period, half the dogs in Madras died, with vehement vomiting, and purging. At Macassar, in Amboyna, about the year 1818, monkeys, dogs, and oxen perished under similar circumstances; whilst, quite recently (1849), horses died, as it was said, of cholera, at Penang, in great numbers. Merely glancing at the piscine mortality

during the cholera period at Marienberg, which seems in one case to have been connected with the opening of a sewer into a pond; and alluding transiently also to the deaths of fishes in the rivers of Germany, and in the carp-ponds of the departments of the Seine and Oise in France, we find that at Astrachan, Moscow, and Warsaw, if not at Tagaurog, in 1831, many examples occurred of poultry and other animals dying with symptoms resembling cholera. So, too, during the epidemic in Bohemia, according to Nekola, dogs died in a few days, with loss of appetite and activity, diarrhœa, and convulsions. In many parts of Austria the same circumstance was noted; and in Dantzic, the cholera was ushered in by a canine epizootic of a choleraic form, so that dogs were said to be the first to indicate the approach of the disease. The Austrian reports particularly mention poultry, dogs, and cats; and the French report by the Royal Academy of Medicine, on the Russian and Polish epidemics, refers especially to the mortality amongst dogs. In 1832, cholera then raging in Paris, a sudden and singular mortality occurred amongst the poultry of the village of Choisi-le-Roi, situated on the banks of the Seine, about five miles *lower down* than Paris, though no cholera prevailed in the village at the time: the combs of the fowls attacked were cold and livid; a thready mucus appeared in the mouth and gullet; whitish liquid dejections were passed; the intestines were found red in patches; and the blood was thick and tarry. A similar epizootic was observed in two or three other villages in the department of the Seine, and also on the Rhone. Since that period, this disease of poultry has from time to time reappeared, but more particularly again in 1849-50, both in France and near Utrecht in Holland, during the last cholera epidemic. Investigations and discussions as to its nature have been held by MM. Renault and Delafond Alfort, and the former concludes, that the disease resembles cholera more than it does any other epidemic. It appears to be communicable by inoculation, and to affect rabbits also. In the winter and spring of 1831-2, a remarkable cholera-like epizootic, recorded by Professor Dick, occurred amongst cattle and horses, in the neighbourhood of Edinburgh, during the prevalence of cholera there, although it had somewhat preceded that disease in its earliest appearance. It is worthy of note, that the same epizootic, having apparently ceased during the cessation of cholera, reappeared near Leith at the return of cholera in that place. Swine and dogs did not seem to be affected. The reputed horse-cholera, at Denny, in Scotland, in 1832, may also be alluded to in this place. In 1832-3,

cholera then prevailing, a porcine dysenteric epizootic is also on record in Ireland. In this category we would, lastly, include the unusual mortality, with more or less striking choleraic symptoms, amongst cats, goats, and dogs, mentioned in the journals of the time as having been noted in Malaga, in 1834, and also in Algiers, Tunis, Cairo, and Constantinople, during the last epidemic visitation of the disease.\*

Now, in reference to the majority of the examples which we have thus collected together of *local* epizootic diseases, more or less coincident with and resembling cholera, it unfortunately happens that neither the symptoms nor the post-mortem appearances have been made the subject of accurate medical investigation. Hence we at once reject them as positive evidences of the effects of a cholera agent upon the animals concerned. And in regard even to those instances in which we have had the advantage of more precise medical observation, both before and after death,—as in the case of the poultry by Mr. Searle, and MM. Carrère, Renault, and Delafond; and in that of the epizootic described by Professor Dick,—instances which have been by some regarded as examples of cholera in animals,—we more than hesitate, on a careful consideration of the symptoms and morbid anatomy, to admit their sufficient analogy with the human disease. The weight of both veterinarian and medical authority inclines to this opinion, which is, moreover, strengthened, when we remember the liability of animals, and of the herbivora, in particular, to colics, diarrhœas, and dysenteries, independently of the presence of cholera amongst men,—the tendency of the human mind to magnify the importance of merely coincident phenomena,—and lastly, the certainty, that if cholera had really reigned epizootically, as it has done epidemically, such powers over the animal kingdom would long ere this have been universally acknowledged.

In conclusion, however, whilst we maintain that the occurrence of epizootic cholera has not yet been satisfactorily demonstrated, we would draw attention to the circumstance, that as we narrow our field of observation—for example, from the animals of a continent or a country, to the cattle of a camp, the poultry of a village, or a compound, or the dogs of a populous city—we meet with a greater positiveness in the description, and a greater tendency on the part of those who observe and record, as well as of those who subsequently review the facts, to regard them as being more or less de-

\* See Indian, French, Russian, and Austrian Reports; also M. Tardieu; and the Medical Journals.



pendent on the same cause as that which produces the contemporaneous pestilence amongst men.

Let us now examine a few of the reputed cases of cholera more particularly described in animals. No instances, as far as we know, have been met with either in cattle, sheep, or pigs. From November to March, 1831-32, as recorded by Mr. Dick,\* seven horses died, one after another, at long intervals, in from three to five hours, having had violent watery purging, followed by coldness of the mouth, lips, tongue, ears, and legs. The blood became thick and *treacly*; the intestines, after death, contained a whitish slime. In August, 1833, a zebra, in the Zoological Gardens, Regent's Park,† died in five hours, after copious whey-like purging of a yellowish tinge, great prostration, and coldness of mouth, muzzle, and limbs. On venesection, the blood proved thick and treacly. Intestines contained a similar whey-like fluid; blood black; urinary bladder not mentioned. In September, 1834, near Huntingdon,‡ a mare died after copious watery purging, much collapse, coldness, oppression of breathing, and suppression of urine. Two hours after the attack began, three quarts of thick blood were drawn. Sixteen hours after, the blood was too thick to run; the pulse quite imperceptible, the tongue and lips blue, and cramps came on. Post-mortem examination very imperfectly made. The editor of 'THE VETERINARIAN' ventures to name the disease cholera, on the ground of its identity in many of the symptoms with the Asiatic form of that malady. In the harbour of Oporto, it is reported by Mr. Lardner, M.R.C.S.,§ that a racoon, removed perfectly well from a healthy ship to another alongside, in which cholera was raging, and of which the hold was very foul, was seized, after a few hours, with vomiting and cramps, and died. In October, 1847, a horse is said to have died in twenty-four hours, of excessive watery purging; it had coldness and spasms, and the blood was tar-like.|| Two other similar cases, though not fatal, are recorded by Mr. Cherry.¶ It is stated by Dr. Schmidt, that he never knew, or heard from others, of the dogs or cats of families sick with cholera, being affected with the symptoms of that disease; and we believe that common experience in this country would coincide with that statement. But a very interesting account is given by Mr. Bevan, M.R.C.S., of St. Ives, Cornwall,\*\* of a dog belonging to a poor woman, which, on the

\* Veterinarian, 1833, p. 144.

† Mr. Ball; op. cit., 1834, p. 548.

‡ Lancet, 1849, vol. i, p. 267.

\*\* Op. cit., 1849, p. 661.

† Youatt; Veterinarian, 1834, p. 427.

§ Lancet, 1833, vol. ii, p. 301.

¶ Veterinarian, 1849, p. 533.

14th September, 1849, cholera then prevailing, was—"seized with sudden vomiting and purging. In a few hours the alvine evacuations as well as the fluid ejected from the stomach assumed the *rice-water* character of cholera discharges; all the visible mucous surfaces assumed quite a leaden hue; the dog died the next day, violently cramped, after twenty-four hours' illness. The woman wrapped the dog in flannel and kept him on her lap, and also put him in a bath. On the 16th, at 3 A.M., the woman herself was taken ill; by 7 A.M. was in a state of collapse; and at 4 A.M. of the 18th she died, having [as the writer states, we must remark,] contracted the disease from her canine companion."

In reference to cats, we find it stated, that in the wards of M. Chomel, in the Hôtel Dieu, a cat, belonging to one of the *religieuses*, who at the time was daily witness of the cholera, died with symptoms of that disease; an opinion assented to by the medical men.\* Dr. Sylvain de Barbe, of Ozouerle-Voulgis (Seine-et-Marne), also relates, that all the cats at one farm, and about a dozen others at different houses, died after two or three days' purging and vomiting, during the prevalence of cholera in that place.†

Again, many examples of both dogs and cats dying rapidly with choleraic symptoms, after having partaken, of their own accord, of the oral or alvine evacuations of their sick masters, are recorded as having been noted in Galicia.‡ Lieutenant K—'s dog, in Poland;§ the case of a dog which fell under the notice of Otto, in the hospital at Breslau;|| another case in a dog, most graphically detailed by Dr. Meyer;¶ and a fourth case, related by Dr. Sylvain de Barbe, are individual examples of the same kind, in which, as will be hereafter described more fully, the symptoms and post-mortem appearances were highly characteristic of true cholera, to whatever cause we may attribute them.

Although related by competent observers as very remarkable cases, approximating very nearly indeed in character to the Asiatic disease in man, and proving the liability of these animals to cholera of some kind or other, the instances above quoted in the zebra and the horse cannot be regarded as perfect examples of it. The scanty narration of facts, the omission of important information, the want of microscopic and chemical observations on the blood and evacuated fluids, and the occurrence of some of the cases during the absence of epidemic cholera, are sufficient to create doubts; whilst

\* Gaz. des Hôpitaux, 1849, p. 231.

‡ Œster.; Med. Jahrbuch, Band xviii, p. 240.

|| Hering; Patholog. für Thierärzte, 1849, p. 369.

† Idem, p. 297.

§ Ibid.

¶ Op. sup. cit.

the similarity of all the attacks to one another, the liability of horses to colic, and the fact that even in man English cholera may assume most closely the features of the Asiatic disease, and yet not be due to the same causes, suggest the probability that these cases were produced by local circumstances, and not by the same widely-extended agent as the human epidemic.

The symptoms and post-mortem phenomena, described as having been manifested by cats, and especially by individual dogs, so unequivocally and so intimately brought into relation with the human sick, wear a much more imposing aspect. Either these must have been cases of common diarrhœa, or of a simple reactionary diarrhœa and vomiting, produced by the swallowed cholera-vomits or discharges, or else of a *specific cholera*, which was transmitted indirectly by those fluids, or propagated by exhalations from the sick, or engendered in the animals directly by the prevailing epidemic cause. Finally, the case at St. Ives, apparently spontaneous in its origin, marked by the rice-water evacuations, and followed by cholera in its owner's house and person, is the most striking instance of all. Still, we have even here to lament the want of minute pathological research, and to remember the chances of a deceptive coincidence. Whatever be the explanation of these cases, we cannot fail to observe, that, just as in contemplating the phenomena of general epizootic diarrhœas, we found the limited pestilence of the camp, the compound, and the town (especially that amongst the dogs of Indian and European cities), arresting the attention of pathologists more than the wide-spread mortality of a continent, so here, in turning from the inhabitants of the pasture, the stable, or the sty, to the dog,—which shares in our food, participates in our habits, is domiciled in our houses, and will follow us to our hospitals,—is our companion in health, and our adherent in sickness,—we find much more frequent examples of and a much closer approximation to the symptoms and post-mortem appearances of cholera as it is recognised in ourselves.

It must not be forgotten, however, that in comparison with the millions of human beings who have been destroyed by this pestilence, few—how very few!—of even the most domesticated animals, have died under circumstances suggestive of an actual identity of cause. But are we right in demanding so strict a correspondence in the effects of any morbid agent upon animals and man? Is not a real influence on the former compatible with many differences and peculiarities in symptoms and effects? Is no allowance to

be made for generic or specific distinctions in the blood, the glandular apparatus, the general organisation or constitutional idiosyncrasies of the animals in question? Have the manifestly imperfect observations hitherto made, in the urgency of more absorbing duties during so serious an epidemic, been so entirely negative as to justify a denial of any influence of the cholera agent upon animals at all; or is it possible that, with all their defects, they point to a future of clearer results? Can this agent, so powerful against man, be wholly inoperative upon brutes? If epidemic, would it not in some way occasionally assail them; if contagious, would it not sometimes overleap the difficulties of transference, overcome resisting susceptibilities, and operate on those creatures which are most in proximity to man?

Construing the literal facts, the scientific pathologist cannot positively assert that animals, even dogs, have yet been *proved* to be naturally subject to Asiatic cholera; but, influenced by general considerations (which can never be altogether lost sight of), conjointly with our hitherto imperfect data, we believe that it still remains an open question, pending the advent of a final solution, whether they are not, in proportion to their intimacy with man, occasionally subjected to the morbid influence of the special agent of that disease.

*(To be continued.)*

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## DISEASES AMONG THE BEDOUIN ARABS.

DISEASES are rare among them; and the epidemics, which rage in the cities, seldom reach their tents. The cholera, which has of late visited Mosul and Bagdad with fearful severity, has not yet struck the Bedouins; and they have frequently escaped the plague when the settlements on the borders of the Desert have been nearly destroyed by it. The smallpox, however, occasionally makes great ravages among them, vaccination being still unknown to the Shammar; and intermittent fever prevails in the autumn, particularly when the tribes encamp near the marshes in Southern Mesopotamia. Rheumatism is not uncommon, and is treated, like most local complaints, with the actual cautery, a red-hot iron being applied to the part affected. Another cure for rheumatism consists in killing a sheep, and placing the patient in the hot reeking skin. Ophthalmia is common in the Desert, as well as in other parts of the East, and may



be attributed as much to dirt and neglect as to any other cause.

The Bedouins are acquainted with but few medicines. The Desert yields some valuable simples, which are, however, rarely used. Dr. Sandwith, hearing from Sattum, that the Arabs had no opiates, asked what they did with one who could not sleep. "Do!" answered the Sheikh, "why, we make use of him, and set him to watch the camels." If a Bedouin be ill, or have received a wound, he sometimes comes to the nearest town, to consult the barbers, who are not unskilful surgeons. Hadjir, one of the great chiefs of the Shammar, having been struck by a musket-ball, which lodged beneath the shoulder-blade, visited the Pasha of Mosul to obtain the aid of the European surgeons attached to the Turkish troops. They declared an operation to be impossible, and refused to undertake it. The Sheikh applied to a barber, who, in his shop in the open bazaar, cut quietly down to the ball, and taking it out, brought it to the Pasha in a plate, to claim a reward for his skill. It is true, that the European surgeons in the service of the Porte are not very eminent in their profession. The Bedouins set broken limbs by means of rude splints.

The women suffer little in labour, which often takes place during a march, or when they are far from their encampment, watering the flocks or collecting fuel. They allow the children to remain at the breast until they are nearly two or even three years old, and consequently, have rarely many offspring.—*From Discoveries in Nineveh, by A. H. Layard, M.P., in 'Association Medical Journal.'*

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### THE BRUSH TICK.

The Australian Tick, means not Greek, calend—colonial, credit—but implies one or two species of insects which infest, torment, and sometimes kill our sheep in this colony. The *acarus reduvius* of the British shepherds is not included under this head, although it was at one time introduced by an importation of Leicester sheep from England, bad luck to them, as if their own bad breed, with bad wool, bad carcasses, and bad constitutions, did not comprehend a concentration of bad qualities sufficient and more, but that they must bring the ked, another bad vermin, to make the lot as bad as could possibly be found, or brought, to do grievous injury to a country like Australia. The appli-

cation of a scab lotion, in which mercurial preparations were compounded, however, soon destroyed these annoyances, and their existence on any station is now very doubtful. But our chief object for consideration partakes of a nature wholly different from the British sheep tick. Far worse. It is usually termed the brush tick, being commonly found upon the banks of creeks, or rivers, where the land is covered with thick scrub, or brush-wood, on the Clarence, Richmond, and other districts of warm climes. The generic Latin name cannot conveniently be given, just because none of us in this quarter have got the *larning* sufficient to give it. But we can tell that it is a burrowing creature, and when opportunity offers it digs into the fleshy parts of dogs, pigs, sheep, &c., and sometimes spares not man himself. The animals seized seem to be affected with paralysis, and the hind limbs first lose their powers. If the insect is not discovered and destroyed, a torpor soon pervades the whole system, which eventually terminates with death. A young man gave the following account of the sensations he felt when labouring under the influence of this singular creature, which had got somehow fixed in the scalp of his head. He experienced a strange sensation that something was wrong with him, but he could not determine what it was. Dullness, with an increasing disposition to sleepiness, attended with a vague idea that all was not right about his head; legs stiff, and requiring strong efforts to make them bear him about; were prevalent symptoms, the last of which created a suspicion that the villain tick might be the real cause. His was a tick-lish case indeed. Search was accordingly made among the hair of his head, and sure enough the insect was discovered burrowing as fast as practicable, under the scalp; but unceremoniously they ejected and killed it, and the young man soon perfectly recovered. Tell us ye physiologists, entomologists, physicians, surgeons, naturalists, &c., how can ye account for the peculiar effects produced by this brush tick? Are they galvanic? or—or—or—will ye agree about it, or account for it at all? Its mode of operation may not be compared to the West Indian chigre, which usually produces running ulcers in a short time. No such ulcers have been discovered from the action of this brush tick, although that such effects may ensue is not denied, but never witnessed. A circumstance lives in my recollection not to be easily forgotten. Calling, in my peregrinations, at a shepherd's hut, considerable surprise was expressed at the sight of eight pigs about six months old, all extended around his hearth, so torpid that they only gave an occasional faint grunt. They were all

affected with the brush tick. Six of the lot he relieved by ejecting the ticks, but the position of the other two he could not find out, so the two pigs never awoke, but died on the third day after. How long the porkers had been affected previous to discovery of their condition could not be accurately ascertained. It is still more difficult to find the whereabouts of these insects on sheep than on pigs, on account of their wool. Dogs are subject to like influences, as said already. It is painful to see the poor faithful dog dragging his legs behind him at extended length, and with imploring looks beseeching his master to see what is the matter and relieve him. Yet the kangaroos, although infested with these insects, do not seem to suffer like domestic animals.—*The Sydney Empire*.

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#### DEATH OF A WHOLE FAMILY FROM GLANDERS.

A whole family, named Uncles, residing at Mangherow, near Lisadell, have been swept away by this disease. The father purchased a horse some time back at a fair at Mayo, infected with glanders. He soon afterwards took the disease from the beast; then his wife and four children caught it, and they all died in great agony. We have heard that two girls living at a place called Windy Gap, about two miles from this town, have also been lost from this dreadful disorder.—*Sligo Champion*.

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#### BURMESE HORSES.

THERE is not what you would really call a *horse* in the country. But instead of horses there is a breed of the most beautiful, little, sturdy, sure-footed ponies in the world, averaging about 11-hands high, and a good one will carry the heaviest man in the army with the greatest ease. It is really laughable to see a great man of 14 or 15 stone weight jogging along upon one of these ponies, and we might suppose it was cruel of him to do so, but, I can assure you, it is not: it is quite wonderful what work these little animals will do. Besides which they are sure-footed to an extraordinary degree, and will go up steps, or along narrow paths, or over rough ground, without the slightest danger to themselves or their riders. I have bought a small one for which I gave 25 rupees. It is not a first-rate one, yet carries me very well.—*Extract from a Letter from Rangoon*.

## BURMESE PONIES.

A number captured up the river (the Irawaddy) were brought down in boats, and put up for sale by public auction. Although they were all “high in bone and low in flesh,” the demand for horses is so great just now, on the eve of movement upwards, that they were sold at an average of 75 rupees (£7 10s.) each.—*From the same as the foregoing.*

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## THE BULLOCKS IN INDIA.

MORE miserable specimens of cattle could not be found than the Madras bullocks. The Bengal bullocks are a larger and more powerful race, though they have not such a fierce look with them. When in condition there is no doubt that the long-horned Dukhance bullocks are very fine animals, and, judging from their looks, have more pluck than the larger and more powerful Bengal ones; and pluck with inferior strength, it is well known, will accomplish more than superior strength without pluck.—*From the same.*

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## ADULTERATION OF LARD.

A communication was received from Mr. George Whipple on this subject, in which he states that he had for some time past suspected the purity of commercial lard, and had recently made a few experiments, which led to the detection of large quantities of some farinaceous substance in it. This adulteration was discovered in the different varieties of lard—from the finest bladder to the common firkin lard. In an examination of the contents of two firkins, weighing  $105\frac{1}{2}$  lbs., a quantity of farinaceous substance, amounting to  $22\frac{1}{4}$  lbs., was separated. The contents of another firkin, weighing  $43\frac{3}{4}$  lbs., yielded  $12\frac{3}{4}$  lbs. of a similar substance. Mr. Whipple points out the pernicious effects which this adulteration would be likely to produce in the employment of such lard for some pharmaceutical purposes, and the danger which might ensue from its application to machinery.

Specimens of the farinaceous substance which had been separated were exhibited.—*Pharmaceutical Journal, Jan. 1853.*



## CASE OF GLANDERS IN A FEMALE:

WITH REMARKS ON THE TRANSMISSION OF THE DISEASE FROM  
THE HORSE TO THE HUMAN SUBJECT.

By A. W. COCKBURN, M.D.

MRS. SLIMS, aged 52, wife of a cab-driver, was seen by me on Friday, 4th February, 1853. She had been in bed for nine days, complaining of feverishness and rheumatism. When I saw her she had excessive pain in the extremities, especially the lower limbs. The ankles were red, swollen, and tender, but not glazed. On the right forearm there was an abscess the size of an egg. The body and limbs were covered with spots, some of a bright livid colour; others with pus; some like mere pimples; and on some parts there were patches similar to erythema. On the forehead, over the right temple, was an ulcer, or rather a cluster of vesicles injured by a blow since their formation. This ulcer was irregular and superficial, with dark, ragged, angry-looking edges, and trifling discharge; it was about the size of a half-crown. There was much thirst and fever. The pulse was quick and small; the tongue dry and foul; the urine scanty and high-coloured; the countenance depressed and anxious. She had been slightly delirious the previous night, but was now sensible. She was ordered to take a mixture of acetate of potash, every two hours, and a pill of soap and opium at night. A poultice was applied to the forehead and arm, the feet and ankles were wrapped in cotton wool. 5th: She was much the same; had had some ease and two hours' sleep after taking the pill. The feet were not quite so red, but still very painful. The urine was clearer, and more abundant. She had had one dark offensive motion. She was sensible, and complained of pain in the stomach from the medicine. The acetate of potash mixture was changed for one with colchicum and hyoscyamus; and a pill with colchicum and conium was ordered to be given at night. 6th: During the night, a sudden discharge of very offensive dark-coloured pus took place from the nose, at half-past ten, a.m. She was drowsy all night, but was sensible when roused. She had not passed urine, unless in bed. The bowels had been moved once, and the motion was less offensive. The nostrils were dilated, and clogged with dark glairy matter; the throat was full of viscid phlegm, with difficulty of expelling it; the eyes were swollen and closed, with copious discharge. The pustules were

abundant all over the body ; none seemed to have burst, except on the forehead, where bruised. The pulse was weaker ; the tongue moist, but coated ; the arm better. The wool had not been removed from the ankles. The attendant said that the matter from the nostrils was peculiar and sickening. The patient was almost in a state of low delirium. The colchicum was omitted, and she was directed to take bark, with diluted hydrochloric acid and stimulants, also an expectorant. *Vespere* : She was more sensible. The phlegm was very copious, but more easily expectorated. The nostrils were much dilated, and discharged a dark sanious fluid. The pustules generally appeared more suppurative ; some over the chest were as large as a sixpence, full of pus, but without inflamed edges round them ; those on the legs were in all stages ; and the patches of erythema were very bright. The eyelids were closed, but she could open the right one. She had taken some porter. Bark and expectorants were continued, and the eyes were ordered to be well washed with warm water. 7th : She died at half-past two o'clock in the morning.

*Remarks.*—On my first visiting the patient, the state of fever, the severe pain of the joints, and the redness and swelling of the ankles, led me to think that she was suffering from acute rheumatism. I concluded that the pustules over the body were of the epidemic character that has so long prevailed, and that the occurrence of the acute rheumatism at the same time was merely accidental. The urine being scanty and high-coloured, I prescribed (what I have never found to fail in acute rheumatism) the acetate of potass every two hours, with a pill of soap and opium at bed-time. But this opinion did not satisfy me. There was an indefinable expression about the patient and a varied peculiarity about the appearance of the eruption, for which I could not account ; and I left her with the unsatisfactory conclusion that she was very seriously ill, and that I did not know what was the matter with her. As I passed through the stable (she lived on the loft) on my way out, I asked her husband if his horses, three in number, were healthy, and he said that they were so. On the next day her general appearance was in no way improved. She had a low typhoid look, and yet she was sensible and collected. The urine had improved ; but as the general symptoms had not, I altered her medicine, and gave her colchicum with an anodyne. On the third day, the sudden and profuse discharge of sanious matter from the nose ; its peculiarly offensive sickening odour ; the dilated nostrils ; the sudden affection of the

throat; the swollen, discharging eyelids; with the more suppurative character of the pustules, at once induced me to set down the disease as glanders. Accordingly I prescribed bark, with diluted hydrochloric acid, an expectorant, and stimulants. In the evening my opinion was more confirmed. The patient died about six hours after my evening visit. I examined the three horses. They were all in sound health; their nostrils dry; their eyes free from discharge; they had no coughs; their coats were in good condition; *but one had grease in the near hind leg.* Though denied by the husband, there seems no doubt that the woman had washed this leg. The disease was not extensive, *but still it was a leg discharging matter.* Her constitution seems to have been very susceptible of absorbing poison; for, two years ago, she injured her finger when attending as nurse on a patient with a suppurating wound of his leg, and she suffered much then from pustular fever and eruption. In the present attack she had been ill for eight days before I saw her. Farcy had preceded the glanders, though Professor Dick says “the two diseases are only modifications.” Entertaining some doubts as to the possibility of the discharge from grease conveying glanders, I begged my friend Mr. Lizars to ask the opinion of Mr. Williamson, veterinary surgeon of Edinburgh, on this point. Mr. Lizars, in reply, writes to me thus:—“I have read over your views on glanders to Mr. Williamson, who corroborates the greater part of them. He says that if you inoculate a horse with the matter from a leg affected with grease, or quittor, or foul sore, the horse will become affected with glanders. Therefore, there can be no doubt that the poor woman caught the disease from the horse’s leg. Glanders often commence with farcy.” Two points in this case struck me as remarkable. First, as noticed by Dr. Graves, “*the variety of inflammatory actions observed in the skin;*” second, as noticed by Dr. Ballard, “the close resemblance in the condition of the nervous system to that in delirium tremens.”—*Association Medical Journal.*

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## HOMŒOPATHY.

“It is, perhaps, proper that it should be distinctly explained and understood, that the practitioners of homœopathy, particularly those in Great Britain, have generally sought to derive advantage from the assertion that the doctrines of Hahnemann regarding infinitesimal doses, &c., formed merely additions to and improvements upon that system of medicine,

‘which had hitherto occupied the minds of men, and been tested and confirmed by the experience of ages;’ and that these doctrines were not fundamentally and entirely opposed to the established system in its principles and practice. Homœopathists fortified the belief of the public in this misconception, by pointing to the fact that they possessed the same medical licenses and degrees, and belonged to the same medical colleges, societies, &c., as the practitioners of legitimate medicine.

“Long, and as I conceive properly, the common law of England and Scotland has been such as to allow British subjects the most perfect freedom as to patronizing or practising any form whatever of medical superstition and pretension; and the late resolutions of our medical corporations and societies were not therefore intended to interfere in any degree with homœopathists continuing to treat all those who applied to them, according to their own peculiar creed. But the resolutions were intended to show that the differences between the doctrines and practices of legitimate physicians, and the doctrines and practices of homœopathists, were so great as to render any farther intercourse and co-operation between them impossible in the conduct of professional matters, and in the duties of professional life. Indeed, Hahnemann himself had long before pronounced precisely a similar opinion regarding the proper relations of homœopathists to legitimate practitioners, and the impossibility of the disciples of homœopathy countenancing the doctrines and practices of legitimate physicians, or as he opprobriously and foolishly styled them—‘allopaths.’”—*Homœopathy: its Tenets and Tendencies.* By T. Y. Simpson.

## THE VETERINARIAN, JUNE 1, 1853.

Ne quid falsi dicere audeat, ne quid veri non audeat.—CICERO.

THE General Meeting of the Members of the Veterinary Profession for the year 1853, followed by what now seems to be established as its usual sequel, the dinner to the President, of both of which accounts will be found in our pages for the present month, appear to have passed off, if not with any incident calling for special notice, at least with as much satisfaction and *éclat* as ordinarily accompanies such reunions,



and without any of that agitation which, while it threw something more than discredit upon the movers of it, became extremely unpleasant, and even painful, to those who found themselves then and there assembled. However, we will not look back upon such scenes as these, but cast our eye forward through the vista of futurity, and endeavour to realise, in imagination, those "bright" anticipations which the "Abstract of the Proceedings" of the College for the sessional year now past, in picture at least, presents to us.

The most prominent feature in the "Abstract," one very properly placed foremost therein, is the mention of an attempt, unsuccessful though it turned out to be, to obtain a house to which might be assigned the name of the Royal College of Veterinary Surgeons. One was found which seemed likely to answer, *pro tempore* at least, the purpose required: through the "law's delay," however, it fell into other hands, leaving the "house committee," appointed by council, to recommence their search. The "Bill of Exemptions," it is promised, shall be reintroduced into Parliament "the very first opportunity." While the finance of the College is, under all the circumstances of the case, in a state to place the infant institution in a condition to defy the machinations of those who would, had they their hearts' desire, break it down and utterly destroy it.

So far, "all's well!" at least *all's hopeful*; and yet we would fain ask, here, as a question which might be put by any inquirer, even by a stranger, how comes it that in an institution doing, to appearances, so tolerably well, so few out of its thousand members are to be seen at the General Meeting? Railway meetings, where people's pockets are involved, rarely are thinly attended; nay, even literary meetings, providing they be of an interesting character, command attendance; but a veterinary meeting, albeit the "College" *in propria personâ* be there, does not amount to above 3 or 4 per cent. of the entire number of the profession. How is this?

One reason for such defalcation appears self-evident. There are two Veterinary Schools in existence in Great Britain, of which but one acknowledges the supremacy of

the Corporate College; therefore it is not unnatural that the offsets of the other, amounting perhaps to about a third or fourth of the whole number—should, for the most part, be reckoned among the absentees. Still, non-attendance at such a meeting is to be complained of; and a cause for this, were the subject a little more closely investigated, might be discovered: resting as it must do, either with the members themselves, or with the Royal College.

There can be no doubt but that no small amount of apathy, or something worse, is yet, we feel ashamed but compelled to say it, dominant in the Veterinary Profession. There are too many, we fear, who take no interest whatever in what is going forward; while others there are who do not, but would interest themselves providing they could see there was any advantage to be derived from it: their usual answer to any remonstrance made to them on the subject being “What is to be got by it?”

Our own opinion on the charter is this—that, as it stands, it has not been, indeed is not capable of being, productive of much good; though, armed with such powers and privileges as it has a right to look forward to, the possession of it might be converted into an instrument of great service to the public as well as to the profession. Were the “Bill of Exemptions” it sues for, granted, that would confer benefit upon its members, and by the majority of them be valued as such; and were to that added, the right or privilege, by law, of assuming the name of *Veterinary Surgeons* to the exclusion of all empirics and pretenders to the art, a greater boon still would be conferred, and one that would prompt or force all, at once, to acknowledge that a great, though no more than just, privilege was conferred upon a member of the Royal College of Veterinary Surgeons.

Were such the case, there is a probability that the recusant school might feel disposed to go with the charter. But why, in the *present* state of affairs, does it not go that way?—why is it still non-complying and refractory? We hardly remember—indeed, we have no great mind to recollect—the grounds upon which the Northern school seceded from its

Southern professional brethren. It is sufficient for our present purpose to know that it *has* seceded; and is actually, at this present moment, warring against the corporate body. But, ought this to be? Cannot terms fair and honorable to both be made between the parties? Is all reconciliation and re-alliance insuperable and hopeless? Perhaps, rather like a difference between individuals, that between the schools, or rather between one of the schools and the college, may only be waiting for proposals from one party to be accepted by the other. We would not have the principal party—the chartered body—truckle to the school; but we would have that party not forget, that, as yet in their infant age, many *desiderata* are wanting to complete their growth, and that, as shown by their own motto, *combination is power*: a good reason why it behoves them to gather together *all* parties, though it be at some sacrifice to their own body. The council had a brilliant opportunity in taking a step this way in the recent election of a President. Why did they not, after one head Professor had served the office, make choice of the other head Professor, and *on certain conditions* elect him? One stands as high in the Scotch school as the other does in the English school. Not that we have ought to say against the elevation of Mr. Goodwin to the chair; no more than we should have against that of Mr. Field or Mr. Turner, had any one of those most respectable gentlemen, all good friends of ours, been placed therein, as the last-named indeed has been. We reason on principle alone, and by such reasoning we are guided, excluding all private and personal considerations whatsoever.

Were a reconciliation of this kind brought about, all opposition would of course end with the Scotch, as it has already done with the English, school; and with that school's opposition, all that of its adherents and hangers-on, who, once that the ground was cut away from under their feet, would have no *locus standi*, and therefore could no longer have any power to show their teeth to the detriment of the College. Hence would result the arrangement of a great point, "as harmoniously as a marriage bell;" and thence would result a much larger attendance at the General Meeting.

But, even supposing the coalition of the Scotch school obtained, would that *necessarily* entail the adherence of the scattered members of the Profession, and induce them in greater numbers to come up to the General Meeting and the dinner. No doubt it would with some educated at and attached to the Scotch school; and did the meeting, from this or from any other cause, ever become a larger one, many of the apathetic class might then feel disposed to add to the numbers of so augmented and proportionally celebrated a professional association.

We cannot help thinking—and we know there are not a few who think with us—that our College, as it stands, partakes rather too much of the *hole-and-corner* system. A large general meeting would tend, in a measure, to remedy this, by not being so likely to re-elect, over and over again, the same council-men; while different council-men would choose different presidents, vice-presidents, and officers; and these changes of men would give rise to changes of measures; out of which would naturally arise a different working of the corporate machine. We should then forestall any see-saw movement going on year after year; and probably, ere many sessions had past over our heads, behold ourselves placed, by this free-trade sort of system in another, and it is to be hoped, improved status altogether.

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THE present President of the Royal College of Veterinary Surgeons is not without name and pretensions to distinction of office. Many will remember his late father, an excellent man, than whom the profession had no warmer friend. He was Veterinary Surgeon to that capital judge of horse-flesh, his late Majesty, George the IVth, in which royal office he was succeeded by his son, the present Mr. Goodwin, who held the office until last year, when he was replaced in it by Mr. Langworthy. Many years ago, the elder Mr. Goodwin compiled a work '*On Shoeing*,' in which a "new system," mainly from the French, was introduced, and by several shoeing



forges adopted. This led to the invention of cast-iron horse-shoes, which by the process of anhealing were rendered malleable, and so, applicable to every purpose of the shoe fabricated in the forge. To bring this cast shoe into general use, Mr. Goodwin procured a series of beautiful brass models of horse-shoes of all sizes, from the pony's foot to that of the cart horse, which constituted the patterns whereby the iron shoes were to be cast. Such an opposition, however, on the part of farriers and blacksmiths arose the moment these ready-made shoes were brought before the public that, what with the force of this, and what with a misfortune which befel Mr. Goodwin afterwards, in finding himself connected with a man of neither worth nor principle, the whole concern fell to the ground: the only remains of the cast-iron shoe being at this time visible at an obscure farrier's shop in the Knightsbridge Road.

The present Mr. Goodwin, our President, has been from his boyhood fond of horses and everything about them. He received a first-rate medical education, having at an early age been apprenticed to the late eminent surgeon, Mr. Wilson, of the Hunterian School in Windmill Street, where he had peculiar advantages from coming in contact with Sir Benjamin Brodie, for whom he dressed, dissected, &c. At the time of the existence of the Veterinary Medical Society, of which he was a member and regular attendant, he brought forth an admirable paper 'On Spavin,' published in vol. III of 'THE VETERINARIAN;' wherein he showed that it was the *joint* of the hock that was the proper and true seat of severe spavin, which at once accounted for the intractability and occasional incurability of the disease: the same, in fact, as Mr. James Turner had done before, touching the navicular disease. Mr. Goodwin has likewise introduced to our notice, several points of continental practice, among which we may, in particular, mention the interest he took in practising himself, as well as in teaching others, the operation with the clams, *à couvert* and *à decouvert*, for castration, as preferable to cauterization. We hope Mr. Goodwin will take it into his serious consideration what we

have said in regard to the amalgamation of the schools and members of the profession. Nothing, we can assure him, will afford us greater pleasure than to have, at the close of his presidential career, to congratulate him on his success.

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WE do not find fault with the summing-up of Judge Crowder—in the case of *Smart v. Maunder*, (given in continuation from the trial, reported in our May No.)—because we can neither feel nor express any sympathy for those who are foolish or mad enough to place their sick and lame horses in the hands of *farriers*: a denomination at once denoting, with some very few exceptions, a man, to all intents and purposes, ignorant of what he professes, and therefore liable to commit the most egregious blunders. If the public could be, by legislative interference, protected in this way—guarded against employing a man who was but a *farrier*, to the exclusion of one who is a graduated Member of the Royal College of Veterinary Surgeons, it would be a safe-guard for them, and a piece of justice towards us. But, so long as there are men in all towns calling themselves *Veterinary Surgeons*, when in fact they are but farriers or blacksmiths, how are the public to make the distinction between the genuine practitioner and the impostor?

We are quite aware that there are Veterinary Surgeons even, properly so-called from the diplomas they possess, who reflect little credit upon their name and the body whence they emanated; we are also aware that there are to be still found, in some parts of the country, men true farriers by trade, into whose hands we would much prefer putting our sick or lame horse to placing him under that of certain Veterinarians. These, however, are, both ways, but exceptions, and nowise invalidate the principle on which we set out. Nothing can more clearly demonstrate the necessity there is for science and skill in medically treating horses, as well as men, than the case to which we have referred.

## SPECIAL MEETING OF COUNCIL,

TUESDAY, MAY 10th.

*Present* : Messrs. Braby, Burley, A. Cherry, Dickens, Field, Gabriel, Henderson, Mayer, Peech, Robinson, Silvester, Stockley, Turner, Varnell, Withers, Wilkinson, and Professors Spooner, Simonds, and Morton.

W. ROBINSON, Esq., in the Chair.

The minutes of the previous Meeting were read and confirmed.

The Council then proceeded to the election of President for the ensuing year, when

*Mr. Henderson* proposed Mr. Wm. Field.

*Mr. Silvester* seconded the nomination.

*Mr. Turner* proposed Mr. Wm. Goodwin.

*Prof. Spooner* thought that the Council, in choosing a President, having paid the compliment to the body of general practitioners and to the Royal Veterinary College, should now direct its attention to the army. He should like to propose the principal Veterinary Surgeon, Mr. Cherry, but he was aware that there were difficulties in the way of that gentleman's election; for he believed that, instead of doing all in his power in behalf of the corporate body, Mr. Cherry had appointed to the army, or had consented to the appointment of, persons who were not members of that body. However, he (*Prof. Spooner*) was willing to overlook the past, and should be glad to see Mr. Cherry elected, if he would, personally or by proxy, give the Council an assurance that he would exert himself to promote the best interests of the College.

*Mr. Turner* thought Mr. Cherry was not friendly to the Institution, having not only made the appointment referred to, but refused, when called upon, to give any explanation of the course he had adopted.

*Mr. Mayer* drew attention to the fact of Mr. Cherry's having suffered the Annual Report to pass the Council *nem. con.*, and then opposed and found fault with it at the annual meeting. He then expressed his regret that two such worthy and excellent members of the profession should be placed in antagonism with each other, and mentioned some of the claims of Mr. Field to be elected as President, especially alluding to the parliamentary influence which he said

that gentleman possessed, and which might be made available in any future application to Parliament for an Exemption Bill.

*Prof. Spooner*, not having received an answer to the inquiry he had made respecting Mr. Cherry, should not propose that gentleman to the office of President, but would second the nomination of Mr. Goodwin, whose claims—that of seniority, among others—he thought were superior to those of Mr. Field.

A desultory conversation followed, in which the great desirability of unanimity in so important a matter was generally recognised, in accordance with which Messrs. Henderson and Silvester, perceiving that the general feeling was in favour of Mr. Goodwin, consented to withdraw their nomination. The ballot was then taken, and Mr. Goodwin declared duly elected.

The following gentlemen were then nominated and balloted for as Vice-Presidents for the ensuing year :

	Votes.
Mr. King (proposed by Mr. Gabriel) . . .	16
Mr. Lucas, of Liverpool (proposed by Mr. Mayer)	16
Mr. Stockley (proposed by Prof. Spooner) . .	15
Mr. Nice (proposed by Mr. Gabriel) . . .	13
Mr. H. Lepper (proposed by Mr. Dickens) . .	11
Mr. J. Bennett (proposed by Mr. Burley) . .	10
Mr. Crowe (proposed by Prof. Morton) . . .	9
Mr. Burt (proposed by Mr. Stockley) . . .	7
Mr. Gowing (proposed by Mr. Varnell) . . .	7
Mr. Cheeseman (proposed by Mr. Silvester) .	3

*The Chairman* then declared the election to have fallen on Messrs. King, Lucas, Stockley, Nice, Lepper, and Bennett.

The election of a Secretary followed, when Mr. Gabriel was proposed by Mr. Robinson and seconded by Mr. Mayer, and, after some remarks on the efficiency with which the duties of that office had been performed, a ballot was taken, and that gentleman declared unanimously re-elected.

On the motion of Professor Spooner, seconded by Mr. Burley, the thanks of the meeting were voted to Mr. Robinson for his able and judicious conduct in the chair.

Messrs. Henderson, Braby, and the Secretary having been named by the Chairman as the Committee of Supervision, the business terminated.

ALEX. HENDERSON.

EDWD. BRABY.

E. N. GABRIEL.



THE  
VETERINARIAN.

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ACTION OF MEDICINES—GENTIAN WITH ALOES—  
AND TARTAR EMETIC.

By T. HURFORD, V.S., 15TH HUSSARS.

BANGALORE, MADRAS.

DEAR SIR,—In the February number of the VETERINARIAN, there is a communication from Mr. Western, relative to Aloës and Gentian. He has failed in inducing purgation by combining these medicines and giving a smaller dose of Aloës. Your experience also goes to confirm Mr. Western's experiments. Now, though it may be presumption on my part, I have a different opinion of the action of these medicines: I have tried them, and I cannot help believing what I have seen and proved. It is an unfortunate propensity in us, to ride a hobby till we break it down. To try and guard against this, I think I distinctly stated I had no idea that Gentian and small doses of Aloës would be a good and standard purge; but that, as a remedial measure, *I knew* that a small dose of Aloës, assisted by Gentian, would produce increased action of the bowels, without the danger to be apprehended from a *full* dose of Aloës. I believe, however, I must now change my mind, and incline to the opinion that it is a *safe and efficient purge* for *all horses* and at *all times*; and, strange to say, this has been brought about as a consequence of Mr. Western's experiments. I have taken ten horses promiscuously, and have given them doses: the cases, with the result, I annex. You will see that nine of these have been purged, one not.

This is not a matter of opinion, it is a fact, patent to every one; whence, then, the difference in results?

I know not how to account for the failure of yours and Mr. Western's experiments, unless in this way:—you limit yourselves too much in the doses, which require apportioning according to the size, age, &c. of the horse; or else, you have

expected the Gentian to act as a charm, and have not taken sufficient care to ensure its operation.

At the College, I was told they had long known of this action of Gentian; *if so*, they have succeeded most completely in keeping such knowledge to themselves. Morton's 'Pharmacy' gives no hint of it, and Mr. Goodwin is the *only* veterinary surgeon I have ever heard of who has, or had so used it prior to my communication to you. Indeed its power is doubted by many who have had their diplomas for years. My brother writes me from Bengal that he has tried it and failed; ergo, he does not believe it, though he means to try again. Mr. Western and yourself are scarcely believers, and doubtless there are many others. If, however, Mr. Goodwin means that Gentian *of itself* has any purgative quality, I must differ from him, so far as this, that I know you may give ℥viij in doses of ℥iv and ℥vj, morning and evening, without producing any such effect. Perhaps, however, he has carried his trials farther than this.

But, indeed, we want a great deal of enlightening on this branch of our profession. The action of medicines is not yet sufficiently understood; and the College authorities would earn a good name for themselves, and confer a great benefit on the profession, if they would institute a regular series of experiments, carefully note the results, and publish them to the world in the pages of the 'VETERINARIAN.'

Apropos, to the action of medicines, if I have not tired you, I will go on to one other. I do not remember what first led me to doubt the sedative power of Antim. Tart.; indeed I am not sure it was not a conversation I had with you. Well, by way of trial, I have given it in solution, thinking it would be more quickly and completely taken into the system: here is the result:

E 927, pulse 40, R ℥ij, 45 minutes after, pulse the same; mid-day, R ℥j, 5 p.m. pulse 40.

E 832, pulse 48, R ℥ij, 45 minutes after, pulse 48, but not strong.

C 1146, pulse at 5 p.m. of 23d, 42; 24th, 6 a.m., 36, R ℥ij, at 7 a.m., pulse 42; mid-day, repeat dose, at 1.30 p.m. pulse 36, 5 p.m. 36; 25th, 6 a.m. 34.

A 1397, pulse at 5 p.m. of 23d, 42; 24th, 6 a.m., 36, R ℥j, at 7 a.m. 36; mid-day, repeat dose, at 1.30 p.m. pulse 42; 5 p.m. 42; 25th, 6 a.m. 36.

E 832, was put off feed for a few hours, but the pulse was not lowered; it could hardly, therefore, be nausea which produced that result. It may have been irritation of the lining coat of the stomach. You will see that in no case was the pulse lowered.

My friend Western, to whom I communicated my doubts, has also been trying experiments, which, I doubt not, he will communicate to you. The result I believe to be, that he has left off using "Ant. Tart." as a nauseant or sedative.

*Record of Ten Cases.*

B 1474, off feed ;	R	Gentianæ, ʒiv,	Aloes, ʒiijss ;	well purged.
G 1100, off feed ;	"	ʒiv,	" ʒiij ;	well purged, two days.
H 1167, lame ;	"	ʒiv,	" ʒiij ;	slightly purged.
B 1356, lame ;	"	ʒiijss,	" ʒiijss ;	well purged, two days.
C 1131, ulcer ;	"	ʒiijss,	" ʒiijss ;	well purged, two days.
B 1524, lame ;	"	ʒiv,	" ʒiij ;	purged.
G 1781, lame ;	"	ʒiv,	" ʒiij ;	purged after 30 hours.
G 1703, ulcer ;	"	ʒiijss,	" ʒiijss ;	well purged.
E 881, off feed ;	"	ʒiijss,	" ʒiijss ;	over purged.
A 1619, lame ;	"	ʒiv,	" ʒiijss ;	not moved

You could hardly have more certainty with as many full doses of Alöes ; but enough, or you will be wishing me somewhere else for trespassing on your time and pages.

Believe me, yours, &c.

April, 1853.

ACTION OF POTASSIO-TARTRATE OF ANTIMONY.

By J. WESTERN, V.S., MADRAS HORSE ARTILLERY.

DEAR SIR,—A hint from a friend soon after his return to India from furlough, induced me to test the virtue of the Potassio-Tartrate of Antimony *in solution*,—a form in which I confess I had never thought of exhibiting the drug.

For years past, notwithstanding the place it holds in the pharmacy of almost every veterinary practitioner, backed too as it is by Professor Morton, I have held doubts of its efficacy, and was really glad to receive the fillip anent the matter ; so forthwith instituted the following experiment:—

I must premise, however, that the head-quarters of artillery possess the advantage (?) of receiving an extensive and frequent influx of recruits, who, in their schooling, used to make such havoc amongst the horses of the brigade that Government sanctioned a certain number of cast horses to be retained on the staff, extra to the brigade, as drill horses, for drill purposes only, under the adjutant and riding-master.

My subject for experiment was one of these "lame," not for the first time or even second. Therefore, while rest was necessary, and the patient otherwise in excellent health, I could work my wicked will upon him without damage to the state or detriment to the service.

*Case.*

Drill grey; ten years' old. Admitted on the 4th March, 1853. Lamé off fore. The needful treatment for the lameness was instituted, and on the 13th it was so slight that I determined on leaving it to rest and nature. I wish it to be here understood that my afternoon visit to hospital is paid at five P.M.; therefore, whenever more than one dose was given during the day, the last was always given at four P.M., to allow an hour's operation before I saw my patient. Besides this, it should be mentioned that, after his admission, a purgative was given, which acted properly. He is now on full feed (the 13th March), and the pulse at six A.M. was 34. Give Ant. Potass. Tart., ʒss; in water, ʒx; three times during the day.

1853.

March 13th, Pulse at 6 a.m., 34		Pulse at 5 p.m., 44
" 14th, " " 38.	Repeat medicine . . . "	" 38
" 15th, " " 39.	" " . . . "	" 40
" 16th, " " 40.	Give ʒj three times to-day in water ʒvj . . . "	" 35
" 17th, " " 35.	Repeat medicine . . . "	" 35
" 18th, " " 39.	" " . . . "	" 33
" 19th, " " 32.	Discontinue medicine . . . "	" 35
" 20th, " " 31.	No medicine . . . "	" 35
" 21st, " " 31.	Give 3ss three times to-day in water ʒvj . . . "	" 34
" 22d, " " 33.	No medicine . . . "	" 34
" 23d, " " 34.	Give ʒjss three times to-day in water ʒvj . . . "	" 45
He refuses his food in the evening.		
" 24th, " " 44.	No medicine . . . "	" 55
Still refuses his food all day.		
" 25th, " " 38.	No medicine . . . "	" 39
" 26th, " " 28.	" . . . "	" 31
" 27th, " " 29.	" . . . "	" 37
" 28th, " " 34.	" . . . "	" 36

Now try the drug in bolus—

March 29th, Pulse at 6 a.m., 32.	Give ʒjss, made into a soft ball with flour (only once!) "	" 35
" 30th, " " 33.	Repeat the ball as yesterday . . . "	" 35
" 31st, " " 33.	Repeat ball as yesterday . . . "	" 45
April 1st, " " 34.		

Discharged for duty.

I make no remark except that at almost every administration of the drug, in whatever dose, *the pulse rose*. In small doses little or no effect was produced, and the large dose at once rapidly increased the circulation, and caused a refusal of food—the latter not, I think, from nausea, as the term is



used, but by inflammation of the stomach. There was no determination to the skin perceptible; certainly none to the kidneys; and the fæces throughout were unchanged.

The concluding remark in your note to my paper on Aloes and Gentian in the February number of the 'VETERINARIAN' quite surprised me. "Mr. Goodwin says he has long known Gentian to be a laxative."

Professor Morton says nothing about this. I have used Gentian for upwards of twenty-five years, and watched its action too, but never had cause to suspect such a result from it. However, such hints should never be thrown away; and, as at the time I read it I had a patient in hospital just getting over a long job of obstinate constipation, the result of disordered liver, I considered it a very good case to give it a trial. He was a chesnut, five years' old, admitted as far back as the 16th February with fever, but would have been sent to his duty this day (March 25th) but for this.

March 25th,	give Gentian	℥ss,	in soft ball with Theriaca.
" 26th,	"	5vj	"
" 27th,	"	℥ss	on morning and evening.
" 28th,	"	℥j	" "
" 29th,	"	℥j	" "
" 30th,	discharged to his duty.		

The pulse never altered a stroke—it was 40 throughout; there was not the slightest sign of laxity of fæces, and my impression is that there would not have been had he been given a dozen pounds of Gentian *alone*.

If Mr. Goodwin will tell us whether he combines any drug with it, or has his peculiar way of giving it, he will confer a favour on us by a few explanatory lines in the 'VETERINARIAN.'

I have taken the liberty to send you by the steamer of this month a small box containing the seeds of the *Butea Frondosa*, which is a good deal used by native hakrems (physicians) as an anthelmintic. Ainslie, in his 'Materia Medica Indica,' mentions that the juice of the seed is given for this purpose in some parts of India, and in others that of the fruit. The tree grows here; but the natives only use the seed. I have used it for many years, and in most cases with perfect success, let the worm be of either species, the ascarides or teres, for these are the only sorts which give me trouble. (I did once find an extraordinary flat worm in a mass of a dozen or more, like tape worms, about half-an-inch broad, and ribbed across seven or eight inches long, with mouths like leeches, of which I sent a specimen to Professor Morton. (I give of the powdered seed ʒij, made into a soft

ball, daily, for three successive days, and on the fourth the same quantity combined with a purgative, and in some instances have had the fæces, when purging, literally a mass of ascarides.

I scarcely know how to account for it, but New South Wales horses generally land in India troubled with these vermin, and being also in very low condition, purgation is a risk. Sometimes for months they will retain an unthrifty coat, eat ravenously, but make no condition, and then it becomes unavoidable. The *Butea* frees them from these parasites, and a change is immediately perceptible; although in some instances they require a second course after an interval.

In the human subject it sometimes performs a cure almost miraculous. A child of my farrier-major, when three years old, was brought into a most pitiable state of attenuation by worms, which for months had resisted the effects of everything tried by our most able practitioner here with children. The father in despair was advised to try the *Butea* seed. He gave, on an empty stomach, grs. xv, four successive mornings, and two hours after the fourth dose a dose of castor-oil. The child must have been loaded with them, for the father brought me a pint bottle full to see, but assured me they were thrown off in myriads; and from that hour the child, as might be expected, recovered, and is now in robust health: about 18 months having elapsed.

If you will give it a trial, and should prove as successful with it as I have been, I shall have no cause I hope to apologise for troubling you to wade through my wild rambling writing.

Yours very faithfully, &c.

P.S. Since writing the above, I find my friend Hurford has been poaching a little on my manor. I need scarcely say it was no other than himself who enquired if I had ever given Potass. Tart. Ant. in solution; and this gave rise to my experiment, which was patent to him. It appears he has pursued the same subject, and given you the result. Well, so much the better; for his experiment will support mine, and thus doubly render it necessary that it should be looked to, for it is deplorable to suppose we may have been giving a stimulant under the impression it was a sedative. I have had some cases of fever lately, and *think* I have done quite as well without as with the Potass. Tart. Ant.

## WHAT IS SPAVIN?

By WILLIAM MILES, R.C.V.S.L.

DEAR SIR,—I perceive you are involved in a wearisome, wordy war, with one of the Agyrtæ, anent the efficacy of tincture of moonshine in curing spavins; do not you think, instead of wrangling about methods of cure, we should first precisely define, what *is* a *spavin*. Or rather let us abolish them altogether, or leave their cure to those outside barbarians, the quacks, the only fishermen who set nets to catch the wind, and take cock lobsters in them.

*Is it not time to reform our Nomenclature?* In this *ultima thule*, spavins are as common as spuds. We have a soi-disant veterinary surgeon who is spavin-mad. All horses sent to his establishment to be examined, come out spavined, whether it is cataract, stringhalt, or broken wind; perchance a bridle lameness, or may be, lame of an ear, it's all the same, Eureka! cock-a-doodle-doo-o-o, "*he's spavined*," and the worst of it is, all those Solons, the farriers, who know as much of the hock as Caliban of Prospero's book, fearing to be thought less lynx-eyed in seeing into *Orcus*, discover spavins in the most extraordinary places, so fast as Aubrey did ghosts, and, I am of opinion, by the same sense,—the smell! I've seen so many fine horses condemned for "*incipient invisible spavin*" (there's a wrinkle for you), that, like Count Bathyany, I'm beginning to think nothing of them. Here's an El Dorado for the British Remedy!

Some time ago I contributed to a local paper a series of articles entitled "*The Humours of Farriery*," a truthful exposition of the science of hippognostics as it ever was, is, and possibly will be, in which I let that most sapient animal Jean Taureau, have a peep at himself, "*deträhère pèllam*." Turning over some papers I alighted on an unpublished one, apropos de Jacks.

ON SPAVIN.—*Syn. Jacks.*

There are a great variety of spavins, there's incipient spavin, and ox spavin, bog spavin, and blood spavin, fat spavin, and bone spavin.

Spavin is one of those bothersome nightmare diseases, that would puzzle the whole Philadelphia bar to make head or tail of. What can be made out of its nature from its name? SPAVIN! I'm gravelled! No two farriers or horsemen I ever met with, were in one mind about its history or

geography, except that it's somewhere about the hock. Some say it's a lameness, others say it is not; all that I can make out with certainty is, that it is one of those indefinite terms which horsemen have invented to designate hock lameness, or deformity, or either, or neither, to hide their ignorance of its nature, if there is, or they fancy there is, anything the matter; or, what is of more importance, they want to depreciate the value of an animal they are purchasing.

If a horse is big boned, has large angular bony hocks,—“Ha! he's spavined,” cries out Sisiphus; well, but what is spavin? all that he can tell you is, that it's a—kind of a—you see—sort of a—you know what I mean—a SPAVIN! Where is it situated? Oh! in the hock, he believes. What part? he don't exactly know, Is it outside or inside; before or behind the joint? Devil a bit can he tell you; nor does he know whether it is an affection of the bones, cartilages, ligaments, synovial membrane, bursæ mucosæ, or veins. I have seen every part pointed out as its seat,—Capital mystery! What a chasm this little word covers in the countenance of the farrier, horseman, or secular groom!

If your horse *is* lame behind, (possibly from bad training, or shoeing) and it isn't curb, or sandcrack, or strained flexors, ask your farrier what is the matter, and he'll tell you plump, he's spavined,—and immediately proceed to fire or blister, as in that case is made and provided, and when he *is recovered* boast what a *cure* he made.

If you don't like *torments* here's an invaluable secret.

A Catacidal Charm to cure a Spavin or a Curb.	}	Take a ram cat, and skin him alive, and then tie the warm skin on the hock of the horse; if one does not succeed proceed to a second catastrophe.
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Another cocksure Remedy or pleasant Pastime for Christians.	}	Get a fine fat hen, or a cock, and cut open his or her belly, and tie him or her on the hock of the horse, all alive, alive o!
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A third, A sweet Balsam, <i>Utile et dulce.</i>	{	To prevent a swelling from running into a spavin, shave away the hair about it, and anoint it for three days with <i>natural balsam</i> , and then lay on a charge, made of 3 ounces of oil of roses, an ounce of bole, half an ounce of wheat flour, and the white of an egg—to sweeten it I guess.
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“But if these will not do the deed,  
To burning with hot irons proceed.  
For when your case can be no worse,  
The desp'rat'st is the wisest course.”

Some diseases, as strangles and spavin, “*breed*,” and it is a question worthy of the consideration of sportsmen, agricultural associations, &c., how far such diseases may be improved by judicious crossing; such as a cross between a



hard disease and a soft one,—*i. e.* between strangles and bone spavin,—might not the soft one (strangles) tend to mollify the hard one, and thus render spavin more easily curable? Others, again, “*grow*,” as splints, curb, ring-bone, cataract, &c., and may be regarded as parasites, animal, vegetable, or zoophyte, like the ivy, louse, or sponge, and might be transplanted from one place to another; or suppose a cataract was to be engrafted on a ring-bone, it might possibly produce a spectacle that a purblind horse might see through. I merely throw out these suggestions for future enquiry and experiment among learned naturalists; perhaps they are not more improbable than “decomposing spavins,” and “lubricating ligaments,” by the British Remedy.

I am, dear Sir,

Yours truly, &c.

VETERINARY INFIRMARY,  
NILE STREET, CORK; 20th May, 1853.

## MAJOR'S BRITISH REMEDY.

*To the Editor of 'The Veterinarian.'*

DEAR SIR,—Observing my name among your list of Contributors, with my former location still attached to it, I have been thinking, for some months back, of writing to you on some subject or another, though only to have the designation altered; and the remarks which are in your late numbers on the subject above-named, have brought my intention to a point.

Here, in the country from which Mr. Major is said to have emigrated, all the information I have of him is derived from the ‘*VETERINARIAN*,’ and all I find of him personally, is that he is “an Englishman by birth, who has practised as a veterinary surgeon in America,” (page 166); but whether his title to rank as V.S. be of British or American origin, we are not told. British of course it must be, if it be genuine, since America has not yet begun to manufacture even the raw germs from which, by time and experience, Veterinary Surgeons may be produced. I fear, however, it must be American; at least the air of quackery about his proceedings smacks much of this side of the Atlantic.

Here quackery reigns unmeddled with, and the empiric is most successful who has the longest list of ailments for which he says his nostrum is a cure, and blazons his falsehoods

with the most unblushing impudence. We have "Carletons," and "Kidders," and "Mustangs," and "Johnstons," and heaven knows how many besides, with "Ointments," "Essences," and "Liniments," curing every disease and accident under the sun, from a galled shoulder to a broken leg, and of course putting such every-day ailments as ringbone, spavin, and founder right by a few applications. Yet among all these wonder-working preparations, I had never seen the "British Remedy" mentioned until I saw it in the March 'VETERINARIAN;' and since then, although I have looked into every quack advertising, sporting, and agricultural American paper I could get my hand on, I have not, up to this date, discovered that it has ever been advertised on this side the Atlantic.

The "Remedy," therefore, may truly be called "British," and should its author succeed in getting even a few English certificates with which to turn to in America, his fortune may be made; for it is wonderful how easy the "smartest people in all creation" are to be gulled in this respect, and how a "liniment" or an "essence" may be made to sell, if said to be prepared after the prescription of some "old English farrier."

One thing at least Mr. Major has not to say,—which is, that he has gone to England to publish his "remedy" *because* all the American cases were cured that needed it; for it is safe to say that the number of spavins, ringbones, and other ossific diseases of the limbs are as five to one here, to what they are in Britain; while the liberality of the owners to pay is in about the same proportion, if they *could* be cured. Why did Mr. Major leave so fruitful a field, and one where his services were so much needed?

Hoping that the "remedy" will be candidly and strictly tested, and that the conclusions will be given in your future numbers,

I remain,

Yours very sincerely,

M. CUMING. M.R.C.V.S.

ST. JOHN'S, N. B., NORTH AMERICA,  
20th May.

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LONDON PROFESSORS AND EDINBURGH GRADUATES.

*To the Editor of 'The Veterinarian.'*

DEAR SIR,—I shall feel myself obliged if you will insert the enclosed letter in the 'VETERINARIAN' for next month. With all due deference, Sir, to your age, and to your high

professional character, for which I entertain the greatest respect and admiration, I cannot but remark that you have allowed your columns to be the medium of circulating a gratuitous insult upon the graduates of the Edinburgh College. Having allowed Professor Spooner to express his opinion on one side of the subject, I think you cannot in fairness deny me the same privilege without being amenable to the charge of undue partiality. But, Sir, I rely upon your attachment to the sacred principles of justice, and wishing you long life and happiness,

I beg to subscribe myself,

Your obedient servant,

JOHN BARKER, V. S.

STOKESLEY; June 9, 1853.

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SIR,—I confess I was somewhat surprised on perusing the leading articles in the ‘VETERINARIAN’ for the current month (June). I was very happy indeed to learn that the “*General Meeting of the Members of the Veterinary Profession for the year 1853*,” had passed off, “if not with any incident calling for special notice, at least with as much satisfaction and *éclat* as ordinarily accompanies such reunions.”

After noticing painful and unpleasant agitations, happily passed away, you proceed to say, “However, we will not look back upon such scenes as these, but cast our eye forward through the vista of futurity, *and endeavour to realise, in imagination*, those ‘bright’ anticipations which the ‘abstract of the proceedings’ of the College for the sessional year now past, *in picture at least*, presents to us.

In your third paragraph, you say, “So far, ‘all’s well!’ at least *all’s hopeful*; and yet we would fain ask here, as a question which might be put by any inquirer, even by a stranger, how comes it that in an institution doing, to appearance, so tolerably well, so few out of its thousand members are to be seen at the general meeting?”

There seems to me, Sir, a degree of reservation in this language which, coming from such a quarter, appears somewhat remarkable.

Were we not doubly assured by the cheering expressions “all’s well;” “*all’s hopeful*;” “bright anticipations;” “points arranged nearly as harmonious as a ‘marriage bell,’” we might almost be tempted to think that we could discern an amount of tergiversation, sufficient to cause a naturally desponding mind to think that there was something “rotten in the state of Denmark.” I am persuaded that the gradual

decline and ultimate death of so brilliant and promising a child as the Royal College of Veterinary Surgeons would be matter of regret to all, and to none more than myself. It is to be hoped that such a dire catastrophe is far distant. I trust that its guardians will obtain the best medical advice in or out of London, that its existence may be prolonged to the greatest possible period, so that the immense and incalculable advantages which it has already conferred upon the veterinary profession may be yet increased, and the debt of gratitude due from the united body be fully paid.

But, Sir, you proceed to account for this deplorable apathy—this miserable defalcation—which characterises the meetings of the corporate College, by the non-acknowledgment of supremacy on the part of the Edinburgh School of Veterinary Medicine. Why that School should be called upon to bend the knee of submission, and “acknowledge the supremacy” of a body without a home, and which at best has but a shadowy existence, and been of questionable utility, is a matter upon which I leave the reader to decide.

I respect the feeling, Sir, which prompts you to desire a reunion of all parties; such a consummation is devoutly to be wished. One would naturally think that the election of Professor Dick to the office of President of the Council would have been a step in the right direction; but, Sir, whether the Professor would accept the intended honour “*on certain conditions*,” or without the imposition of any conditions at all, is a subject upon which I am in entire ignorance.

I cannot but subscribe to the truth of the following remarks, and which, coming from so high an authority as yourself, it is to be hoped will have due weight. You proceed to say, “We cannot help thinking,—and we know there are not a few who think with us,—that our College, as it stands, partakes rather too much of the *hole-and-corner* system.” There is no doubt, Sir, about the absolute correctness of this statement; and if more liberal measures were resorted to, and more liberal language made use of when speaking of members of another school, there would not be that apathy in the veterinary profession which you, Sir, in common with many more, so much deplore.

Professor Spooner, in a speech reported to have been delivered by him at the annual general meeting of the Royal College of Veterinary Surgeons, among other things, says, “He thought the report should not issue from the Council without any mention of the fact that the Edinburgh School, so far from having in any way yielded to the sentiments of



the profession at large, was still sending forth uncertificated members as practitioners. It might be said that they underwent an examination; but that was not before a proper and officially appointed board, and the pupils who only passed that examination were just as external to the corporate body as the man who had been educated in a stable." (Hear, hear.)

Again, the same gentleman is reported to have said, "He thought, in stating the number of pupils who had obtained diplomas, the report should have distinguished those who had graduated in the Edinburgh School. Very few pupils from the latter School had received diplomas, while dozens had been sent forth from it into the country as illegitimate practitioners of the art."

Now, Sir, I have not the least doubt but what Professor Spooner is a very worthy gentleman, and well qualified to fulfil the office which he holds, and has a perfect right to express an opinion upon any subject which he thinks proper; but, Sir, with all due deference, and without the least desire to differ from one who ought to be well versed in the "law and the testimony," the following expression has struck me as somewhat remarkable: "*and the pupils who only passed that examination were just as external to the corporate body as the man who had been educated in a stable.*" (Hear, hear.)

I imagine, Mr. Editor, that this is somewhat like wholesale excommunication—a dreadful anathema, worthy of Popery in its palmyest days. How soul-harrowing must be the thought to every member of that "recusant" school when he surveys the gibbet upon which he must expiate his crimes and suffer professional martyrdom! and, oh! unkindest cut of all, to be condemned to the shades of quackery to all eternity! Horrible! horrible!

We have been told that there was once a foolish frog who, in the vain attempt to become as large as the bull, distended his abdominal parietes to such an extent that rupture and death was the consequence.

But to think, Sir, of being as "external to the corporate body as the man who had been educated in a stable."

What is this corporate body of which we are told so much? Of what does it consist? Where does it reside? What benefit has it ever bestowed that it should be deemed the brazen image before which all knees should bow, and in default thereof we are to be condemned to professional death? What is it? A mere shadow, premature in its birth, unhealthy during life, with the fear of early dissolution from mistaken zeal and misdirected measures.

But, Sir, are the Edinburgh graduates really "illegitimate

practitioners," as Professor Spooner, in his superlative wisdom, has been pleased to style them? We think not. The days of monopoly are past. That system, whether commercial or professional, which requires charters or grants of money for its support, must ultimately fall or be injured by the connection. The Edinburgh school is self-supporting—it requires no Government aid, nor am I aware that it receives pecuniary assistance from any other body. When we reflect that the number of its pupils keep gradually increasing, during the sessions 1850-51 and 1851-52 I believe the majority of them were English, not confined to one or two counties, but some coming from the immediate vicinity of London itself. To the best of my recollection, there were about 80 students each session. For a period of nearly six months each session we had to attend four lectures each day, embracing the anatomy, physiology, and pathology of the horse, neat cattle, sheep, pig, and dog, &c., by Professor Dick; the principles of chemistry and pharmacy, by George Wilson, F.R.S.E.; general zootomy and demonstrations, by Mr. Barlow, V.S.; zootherapeutics, comprising veterinary materia medica and dietetics, by Mr. Dun, V.S.; also lectures, demonstrations, and examinations on the microscopical, physiological, and pathological anatomy of the animal tissues, by John Barlow, V.S.; with practice and dissecting to fill up vacant time. Mr. Barlow was present in the latter room daily, giving instructions to inquiring students with the greatest kindness and patience.

Yet, Sir, after hearing these lectures twice over from the mouths of teachers second to none in ability and desire to impart knowledge, after seeing all the practice I possibly could, after dissecting most minutely and assiduously every carcase I could lay hands on, whether horse, cow, dog, or pig, after spending many a weary hour over the midnight lamp, and undergoing an hour's examination at the close of my scholastic studies, with my diploma signed by such men as Dr. J. Goodwin, Professor of Anatomy at the Edinburgh University; Dr. Gregory, Professor of Chemistry; Dr. Balfour, Professor of Botany; William Siller, M.D., V.P.R.C.P.E.; George E. Day, Professor of Anatomy and Medicine; Dr. Bairdner, F.R.C.S.E.; John Stouthers, F.R.C.S., Lecturer on Anatomy; Douglas Maclagan, M.D., F.R.S.E., &c.; H. Hallen, V.S., 6th Dragoons; Edward Dycer, V.S.; Robert Macrobie, V.S.; John Steele, V.S.; Alexander Watt, V.S.; G. W. Balfour, M.D., V.S.; John Barlow, V.S.; and William Dick, Professor of Veterinary Medicine;—yet, after all these names certifying to my ability

to practise the veterinary art, I am told by Professor Spooner that I am an "illegitimate practitioner," and as "external to the corporate body as the man who had been educated in a stable." As for the latter dreadful exigency, it is a matter of no small gratification to me that I never had anything to do with the corporate body, and I trust that I shall ever remain as external to that matchless mystery as I am at present. But as for being an "illegitimate practitioner," I leave every candid mind to judge.

Believe me, Sir, I should not have noticed Professor Spooner's remarks,—for I am sorry to say similar ones are no new feature in the pages of the 'VETERINARIAN,'—had not your articles on a similar subject attracted my attention. I have been frequently amused at the vindictive feeling displayed by many veterinary surgeons when a graduate of the Edinburgh College has endeavoured to enter the army or the East India Company's service; yet, Sir, you will remember that not long since all this opposition was futile—both services were entered; and I have been told, with what correctness I am not prepared to say, that on one occasion the diploma of the Royal College of Veterinary Surgeons was, after some treating, ultimately offered without price, but respectfully declined.

I see no reason why an Edinburgh graduate should be desired to pass an examination before a London board, seeing that we have, without that, the same privileges and the opportunity of receiving as good, if not superior, education. I conceive it a vain thing to imagine that a charter or a diploma will insure a man's respectability and success in his profession. By his own conduct, perseverance, and attention must he ultimately stand or fall. No body, corporate or otherwise, has any right to say to the public, You must employ this man because we have examined him, and you must not employ that man because we have not examined him. It is humiliating to think that the educated veterinarian should deem it necessary to shelter himself under the strong arm of the law for protection against the aggressions of the "*illegitimate practitioner*;" whether he "be educated in the stable" or at the Edinburgh Veterinary College.

Afraid that I have trespassed too much upon your space, and assuring you, Sir, that my remarks are offered with the greatest good will,—for I believe Edinburgh graduates may afford a smile at those painful ebullitions of temper, which serve no useful purpose, but only betray signs of irritation and weakness detrimental to the prosperity and united action of the profession at large,—and hoping that the legitimates

and the "illegitimates" may soon be united in one common brotherhood,

I remain, Sir, your obedient servant,

JOHN BARKER, V.S.

STOKESLEY; June 9, 1853.

## RUPTURE OF THE DIAPHRAGM, WITH THORACIC HERNIA.

By HOWELL CRAFT, Kelvedon, Essex.

DEAR SIR,—I beg your acceptance of the following, should it prove in any way useful to the profession.

On Thursday, 2d June, at 7 a.m., I was called to attend an aged and broken-winded horse, the property of Major Hamilton, holding a farm in this neighbourhood. It appears that the horse the day previous had been very much pushed in working a thrashing machine, until a late hour, after which, as usual, the horses were turned out for the night. On being taken the next morning to the stable to bait before commencing the day's work, this animal evinced symptoms of *colica spasmodica*, and, in consequence, I was sent for.

*Symptoms.*—Pulse 50, and soft; legs and ears rather moist, as he sweated with the least exercise; respiration accelerated; mouth dry; conjunctiva slightly injected; eye full and staring; the greatest difficulty experienced to keep him from lying down, and when allowed to do so, he would instantly turn on his back, and remain in that position for a considerable time—the yard being well littered with pea-haulm, very much assisting him in so doing.

*Diagnosis.*—Considered it to be some extensive lesion, having had a similar case in hand about six months since, but without thoracic hernia.

*Treatment.*—With the state of the pulse, and my patient not being in very plethoric condition, I did not at once bleed, but administered an antispasmodic draught, which I happened to have with me, from which he appeared considerably relieved. I then left him to return for an hour, living close at hand. On my return, I was informed that he expired a few minutes after I left the premises.

*Post-mortem.*—All went on very well until the time arrived for removing the stomach, which I then missed; so, directing the man who was assisting me to lift up the remainder of the intestine, I perceived a quantity of blood flowing along the spine, and, on further examination, found the diaphragm was



ruptured, and recently so, from about two inches from the spine to the cordiform tendon. The stomach, which was nearly full of masticated clover, with part of the duodenum lying underneath it, was closely impacted within the cavity of the chest, and twisted about in such a manner that I was obliged to extend the opening into the thoracic cavity before we could return the contents into the abdomen. Hoping that I have not encroached upon your time and patience with this case of somewhat unfrequent occurrence,

I remain, &c.

\* \* \* The above bears a resemblance to Mr. Percivall's case in the last number.

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## UPON THE TREATMENT OF OPEN JOINT.

By EDWARD MAYHEW, M.R.C.V.S., London.

It is now better than three years since I was seized with sickness, nor am I even yet perfectly recovered; however, I am well enough to write this from notes which I had previously taken, and I hope by autumn to be once more with "harness on my back."

For a long time it occurred to me that the present treatment of open joints was based upon false principles. What could Coleman mean by the free use of the budding-iron, which he both taught and practised? In the first place, when a knee is opened, the injury does not stop there; we know little of the real state the part will ultimately assume for three days or a week; we must wait till the slough has taken place before we can pronounce a definite judgment of the extent of the wound, then applying the hot iron, even supposing it upon each application to act as the late Professor intended, was merely to singe that which must eventually come away. It must, however, be a good-sized budding-iron which is to fit the orifice left after the vast majority of sloughs have fallen off. But put on one side the folly of that remedy, which is of no use when we most require assistance, did it never strike the advocates of the iron that if it is sometimes reparative, it is more often destructive in its agency? Is it fair or prudent to employ upon other people's property a remedy which, if its chance of doing good do not answer, is certain of doing serious harm? Yet I say too much when I allow it has a chance of doing good. Heat an iron to any extent that it may please the operator, then

plunge it into the white of a broken egg. Hold it within the substance till the iron cools, or is of a dead heat, and then withdraw it. In what condition will the iron be when it is taken out? Yet this is exactly the basis upon which Mr. Coleman used to advocate the use of the budding-iron. The iron plunged into white of egg will be coated with its coagulation, and the same weapon inserted among synovia will be covered with the like product. The substance which was to be left behind to serve as a plug will come away, and the injury be aggravated, the bad effects alone being left behind. I know the iron is now recommended for small openings alone, but there may be a small opening in the first instance, which, when the slough takes place, shall prove a large one, and what can be the service of a remedy which is uncertain in its action, injurious in its application, and which does not provide for the natural after-consequences? There remains yet another mode of treatment to be mentioned: this consists simply in mechanically stopping the flow of synovia, placing a cork in the orifice, as I have heard it elegantly expressed.

Now, as open joint is generally accompanied by a lacerated wound, a lacerated wound must close by suppuration, then in thus plugging the orifice, they not only prevent the escape of synovia, but at the same time they dam up the pus. It matters not whether lime, corrosive sublimate, compound tincture of aloes, with a pledget of tow and bandages, Indian rubber, or brown paper be used, the principle is the same. I leave the defence of such a proceeding to those who can advocate the result which ensues from confined pus, and without recording the injurious effects I have witnessed from that which I consider the bad treatment of others, will at once record the good effect which I have seen result from my own plan.

*Case 1.*—A cart mare having a severe tread upon the front of the coronet of the off hind leg, was brought to London, twenty-two miles, with a heavy load behind her. She performed the journey, but upon entering Brooks' Mews, Paddington, her foot slipt, probably from exhaustion, and after she had fallen, she was driven some distance down hill by the impetus of the weight behind her.

Upon releasing her, it was discovered she had injured the old sore, and was acutely lame. The proprietor returned to the country leaving behind him his maimed servant with directions she should be treated: I was called in, and at first I gave up the case. The wound was rather larger than a crown piece, directly upon the tendon of the extensor pedis, and over the coffin-joint; I put my probe into the wound, it

entered three quarters of an inch, I then withdrew the probe, requiring no better evidence that the joint was opened. But my determination to give up the case was met by entreaties; the proprietor had returned home, there was the poor animal left for me to do what I pleased with, and surely I could try something.

It was clearly then an experimental case, and as such I accepted it. Now when I take what is termed an experimental case, I always endeavour to save the life; it is true I try a new plan of treatment upon such animals, but it is with no wish to destroy the life, or even to hazard the well-being of the creature placed under my control. I begin with the smallest dose I can have any faith in, and of the remedy which in my judgment is best suited to the particular disease or injury; I thus adopt a new mode of treatment, but I do so with the sincerest desire for the well-being of my patient, and I always strive to watch and attend to these cases, so as to be able to change the treatment in time, should my judgment be erroneous.

I sent to the mare three bottles, each containing :

R Sulphuri c. Ether. ℥j;  
Tinct. Opii, ℥j.  
Tinct. Zengib, ℥ss;  
Aquæ Font., Oj.

These bottles were sent under the impression that she had been shaken by the fall, and was depressed; accordingly, I ordered her all she could eat, every morsel of corn she could take, with a bran mash every night, as I gave no physic. Upon the foot itself I positively placed no bandage, I left the wound quite free and exposed. For this injury, under the impression that it must be bruised, I merely sent a lotion composed of

R Tinct. Arnic. Mont., ℥ij;  
Aquæ Font., Ojss.

and this a neighbouring smith undertook to dip a piece of sponge in and squeeze the sponge upon the pastern immediately above the wound so often as business permitted him. In four days the wound was enlarged and clean, the torn tendon was to be seen glistening in the centre of it; I now changed the lotion for one composed of

R Chlor. Zinci, ℥j;  
Aquæ, Oj.

and ordered this to be applied after the method of the previous one. Particular injunctions were left that the

attendant was to remove nothing which might appear upon the surface of the injured part, not to touch the wound itself; but he was to squeeze the sponge upon the pastern, and to permit the liquid to trickle upon the sore.

This was continued for a fortnight, at the expiration of which period the animal could not put the foot to the ground. So lame was she that it occupied ten minutes for her to hop twenty yards; yet, though in this state of suffering, and in a hind foot, she only slightly fell away, and was perfectly quiet: her attendant used to enter her loose box, and without tying up her head, dress the foot; she became one of the gentlest animals I ever knew. At the end of a fortnight a piece of tendon sloughed away; it was two inches long and one inch and a half broad. Now we had a decided open joint, and yet from this time the mare began to improve, until, at the end of six weeks, she was sent home as sound as ever she had been in her life, the orifice being perfectly healed over.

*Case 2.*—A small but remarkably handsome chesnut mare was being ridden in the park, when she came down upon a newly gravelled portion of the road and cut her knees most frightfully. The owner, who was on her back at the time and was unhurt by the fall, upon seeing the condition of his horse, ordered her to be killed; but a person who kept a riding-school in the outskirts of London happening to pass, he gave the animal to him to do as he pleased with. It was by the last-named gentleman that I was called in, and he was very desirous the animal should be saved, although having seen several of such cases, he was uncommonly doubtful with regard to the result.

In this case I neither bled nor purged, but as before, sent cheering drinks. A groom was ordered to sit up with the animal, and to bathe the knees every half-hour with some of the lotion first sent in the other case; I had the animal's head tied up, and my own slings being in use I went to Camden Town to borrow a pair of my excellent friend Mr. Gowing, who returning with me looked at the knees, and said he did not think the mare had cut herself severely. However, the slings were fixed, and after four days' standing upon injured limbs, the animal, although a very ticklish one, took to them very comfortably: it is after this fashion I propose the slings should always be applied, first render the animal thoroughly tired by tying up the head, and obliging him to stand, then offer the slings; of course a fresh horse will kick his life out when he feels such things touching his girth and his flanks, but it is very different with an animal that is thoroughly worn



out; to this last they are a welcome relief, and their use is no sooner comprehended than the body is flung into them.

Six days from the injury the sloughs came off, and it was, indeed, a terrible cavity which they left exposed. However, I once more resorted to the chloride of zinc lotion, and with such good effects, that at the end of three week the slings were removed. All medicine was then discontinued, and the animal turned out to grass; and a fortnight afterwards the proprietor called on me at my surgery with the mare in a gig, and, from the size of the scar, it would have been impossible to tell whether the horse had merely received a graze, or had actually suffered from a broken knee; no one would suspect the real nature of the injury.

Since these two cases occurred, I have had repeated opportunities of testing the result, and, I am happy to say, always with the same termination. The treatment may appear novel,—it may even seem bold; but whether it really is one or the other is not the question. It should be asked, is it based upon right principles? If it be so founded, it may be unhesitatingly adopted by the profession; and let those who try this plan candidly report the result to you, that others may be encouraged to pursue it, or be put upon their guard against its delusions. My chief motive for reporting these cases to your journal is to test the efficacy of the measures which have in my hands been so eminently successful. But if this mode be properly grounded, it will be equally curative in other hands as it has been in my own; and it is to put this fact upon its trial that I court the benefit of your circulation.

The advantages of my plan are briefly stated. They do not weaken the animal; they rather render him quiet than restive, for an infant, provided it had the necessary knowledge, could apply the dressing. As the restoration proceeds there is no stench. No application is used that the most delicate lady in the land might not, without a shudder, dip her hand in; while, in addition to their being cleanly, is the recommendation of their being perfectly harmless, if inadvertently swallowed by a human being, and remarkable for nothing so much as for their simplicity.

I have the honour to be, &c.

P.S. I forgot to state the mode of action. Of the agents which I use, the *arnica montana* is stimulative, and is in Germany, by the poorer class, generally applied to wounds. It disperses the coagulum, though it appears from my observations, limited as they are, to have no power to prevent a

slough. It is now generally adopted in medicine,—many thanks to the Homœopathic practitioners.

My first instigation to use the chloride of zinc sprang from its known efficacy in destroying the odour accompanying the process of sloughing. However, to my delight, I discovered it had the property of coagulating synovia. Under its use in open joint, the lubricating fluid will accumulate about the wound to the size of a man's fist. It was this accumulation which I am always anxious should not be disturbed, under the notion that it was a fungoid excrescence or any other abnormal body. Fungus, it may as well be here stated, I have never met with while using the solution of chloride of zinc. The lotion appears to possess the power of suppressing all luxuriant granulations. Thus it does good in two ways. It not only causes an accumulation which effectually closes the orifice, while permitting the escape of pus, and allowing the healing process to go on internally, but at the same time it renders the after use of escharotics unnecessary; thus, in the hands of the very ignorant, doing more than the iron, guided by the most skilful operator, can pretend to accomplish.

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## INVERSION AND RUPTURE OF THE UTERUS..

By J. YOUNGHUSBAND, V.S., Greystoke.

DEAR SIR,—Perhaps the following definite description of two cases of inversion and rupture of the uterus in two cows, with protrusion of the intestine in the one case, may prove interesting enough to obtain for them a small space in your valuable journal.

On the morning of the 3d January, 1850, I was sent for in great haste to a cow that three days before had calved, and apparently up to this time had done well; but on that morning, on the cow-keeper attending as usual, he found the cow down, and the whole of the uterus protruding through the vagina. On my arrival I found her as described, with the uterus in a most loathsome state, from being suffered to remain unprotected among the dung and urine of the cow-house, and also the placental membranes adherent. Plenty of assistance being at hand, we had her up, well raised her hind parts, and in that position secured her, so that she could not well slip down again. Having carefully detached the placenta, I next proceeded to cleanse the parts by washing them with a mixture of weak spirit and water. Having

accomplished this, I proceeded to return the part; but on minutely examining that viscus, before attempting its replacement, I discovered in it a large rent, through which I easily introduced my hand, and, for the better satisfaction of the owner, I caused one of the bystanders to do the same, to show them that it was not through any mismanagement of mine that this untoward accident had taken place; for, in my belief, another cow had trod upon it while she was down, and thus done the mischief. After this, I effected its return without much difficulty. Judging I had got *all* the part into a right position, &c., I made an attempt to withdraw my arm; but, in doing this, the cow immediately began to strain with such violence that it was not without the greatest difficulty that I could retain the part in *statu quo*.

But, by a fortunate slip, her anterior parts were brought so near the ground that I now easily accomplished that which, for a length of time, I had found the greatest difficulty in attempting to do,—viz., getting the part into a right position, retaining it there, and withdrawing my arm without difficulty. The cow now straining very little or none, I applied the usual means of prevention,—gave an anodyne,—had her set up from the awkward position into which she had got,—and waited to see the result. Retreated for a short time, leaving a watch in case anything untoward should again take place. On my return, I found her still up, attended with no bad symptoms, very little straining, and appearing to be more comfortable than her situation would warrant. She was now offered a little food, of which she seemed to partake freely. Still, I warned the owner of the danger, and told him I had not the slightest hopes of her recovery. To be brief, from that time she had a little fever medicine occasionally, and I paid her a few visits, still finding her apparently improving, and on my last visit, on the 10th, found her in so favorable a situation that I told the owner that, being at a great distance, unless I heard more from him, I would discontinue my attendance; nor had I more occasion to repeat them. The cow did well, and has since had two more calves without needing any of my assistance.

If useful, the owner's name is a Mr. Hutchinson, of Moor End, on the road from Penrith to the far-famed town of Reswick.

CASE II.—This was a cow belonging to Mr. T. Monkhouse, of Moredale, in my neighbourhood, which calved apparently with the greatest ease, showing no signs of particular uneasiness; but, on paying her a visit, he found her with the uterus protruded and the placenta attached. They

immediately secured the part, so as it might receive little or no injury from the contact of foreign bodies. In the meantime, a messenger was despatched for me. Being at home, I was not long in being at my post. After having had her put in a position which I considered favorable, I proceeded to detach the placenta, which was easily done, and the part being free from dirt, was soon ready for returning, which, from the dilated state of the parts of generation, was of all cases I ever had the most easily accomplished. But mark the sequel; when I imagined I had made all right, the cow, appearing to suffer very little from the effects of the operation, was let up from her situation, and I had withdrawn my arm, when, behold, a portion of the small intestine made its appearance through the vulva. Judge of my consternation now, having no cause to fear such an untoward act. I told the owner how the case stood, and frankly confessed my ignorance of its cause. I now proceeded to find out the rent in the uterus, which I soon did, it being in its posterior part, and without much difficulty got the intestine returned. My next aim was to cause as much contraction of the uterus as I could, so as to bring the divided edges of the organ together. This I did by the application of Tr. Opii Camph., and which, I am proud to say, soon gave me the required satisfaction; so much so, indeed, that before I withdrew my arm the laceration was scarcely distinguishable to the touch. The cow in this case appearing in so easy a state, no truss was applied for the first night, but a person staid with her, if possible to prevent future ills. Now, sir, I must say of all cows, this one has gone on most favorably. To give a description of her treatment would be a waste of time and paper; since, as to the medical treatment, it amounted almost to nothing. Careful nursing, with a few solitary doses of medicine, constituted the whole; and at the time of writing this, she is in as thriving a state as any one of the stock on the farm. So I think I may say of this case, *per se*.

\* \* \* Our old and staunch and valued correspondent has had serious domestic calamities to stay his pen. They have, however, it will be seen, but suspended, not quenched, his zeal for Veterinary science, and attachment to the 'VETERINARIAN.'—*Ed. Vet.*

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## Foreign Department.

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EXTRACT FROM THE COMPTE-RENDU (REPORT) OF THE  
TRANSACTIONS AT THE ALFORT SCHOOL DURING THE  
SCHOLASTIC YEAR 1851-52.

### *Clinical Chair*—NEUROTOMY.

(*Continued from p. 336.*)

IN the last number we recalled to mind the anatomical lesions peculiar in navicularthritic disease: it now remains for us to complete the subject by pointing out the results we may expect to follow the operation of neurotomy, employed for the purpose of palliating the consequences of the disease at its various stages.

Neurotomy is more certain and more prominent in its results when navicularthrititis has attacked but one foot; when the disease is less chronic; and when the lesions, the consequences of it, are of less spread and intensity, than when the navicular bone and its tendonous covering are in a great measure destroyed by ulceration. Neurotomy is especially serviceable against lamenesses proceeding chiefly from pain, without too great alteration of structure; and consequently, it ought exclusively to be employed while the disease present holds this essential character, and not to be required for more than it can yield, by employing it in cases where the lameness is likely to fatally persist, even after the disappearance of pain in the affected parts.

Now, navicularthritic disease of very long standing has a right to be regarded in this last category. At this period pain is no longer the predominant ailment. It is true, it is always present in an extreme degree; but along with it, and peramont to it, there exist material lesions, of which it in fact is but the expression; and these lesions are of such nature that they are no longer compatible with the freedom of the motions of the joint of the foot, and consequently with the free play of the joints above it in the limb, seeing that those below are regulated by those above. What, indeed, can neurotomy effect when the navicular bone is reduced to a third or a half of its original dimensions by the dry sort of caries invading it; when the tendon no longer forms here various disjointed filaments, or but an attenuated membrane, in place of the powerful aponeurotic expansion with which it is terminated in the normal condition; while,

between these two parts thus altered, adhesions establish themselves to the destruction of the glistening pulley-like texture, through which the tendon performs its action. What can neurotomy effect in cases such as these? It cannot restore to the tendon its former texture or its glistening surface; its volume, its thickness, or its tenacity. Nay, more than this, neurotomy cannot prove completely efficacious in an organ that has undergone such changes, in stifling the pain which is a necessary accompaniment of them, and which plays a part so influential in the production of lameness.

In fact, to a certain extent, it would appear that pain finds its way to the sensorium through other channels of communication than the nervous chords, the physiological conductors of sensation; the same as the pluræ, the peritoneum, and mucous lining of the intestines, are, though in the normal state endowed with a sensibility very obscure, under inflammation become the seat of the most intense and intolerable pain, of which the nervous filaments of the ganglionic system are the conductors to the centre of perception; the same as the digital extremity, of which the communication with the sensorium has been interrupted by complete section of all the nervous chords radiating from it, likewise becomes the point of departure of the most painful sensations whenever inflammation has invaded the deep-seated tissues composing it. Is the sensation in this case transmitted by the ganglionic filaments belonging to the arterial tunics of the part? It is possible. Be this, however, as it may, so it always happens in practice; it being no rare thing to see horses in whom one foot has been neurotomised remain insensible to the prick of a nail in the act of shoeing them, and to such a degree that the farrier, not being aware that the horse is pricked, under the belief that the nail has gone in the right direction, leaves the nail sticking in the quick. Suddenly, the horse falls quite lame when inflammation comes to follow the prick, and to produce gangrene of the sub-corneous tissues, and caries of the bone. From this we may conclude incontestibly, that the tissues rendered insensible by the operation of neurotomy to the ordinary excitants, and even to the immediate influence of traumatic agents, may recover their lost sensibility the moment inflammation has aroused in them nutritive actions. This is a phenomenon of daily observation, and admits of being produced at pleasure. Therein, no doubt, resides the explanation of those returns of lameness observed sometimes in a longer or shorter interval, after neurotomy having, for immediate result, the dispersal of them. These relapses have been attempted to be explained through

the re-establishment of the function of the cut nerve by its continuity. It is, however, little admissible that the indurated knot constituting the cicatrix between the two divided nervous trunks, could ever become the conductor of the nervous stream: it is much more probable that the return of the lameness is referable to the progress of the disease which neurotomy has not been able to efface. The painful sensations which had ceased to be felt after the section of the cerebro-spinal nerves, in so much as the material lesions to which they corresponded were little developed, becoming exalted to a point to be transmissible through other roads, in proportion as the destruction of the tissues has made progress.

Finally, when neurotomy is practised for the concealment of lameness, the product of navicular disease in its last stage, we must not expect other than results incomplete and of little duration, since, on the one part, the structural lesions accompanying the disease, in this extreme stage, are sufficient in themselves to offer mechanical obstacles to the regular play of the articular apparatus; and because, on the other hand, the pain attendant on these lesions is of sufficient intensity to be transmitted to the centre of sensibility through other channels than the divided nervous chords. The results, however, are different when the operation is practised for navicular disease not as yet complicated with such organic alterations, and especially when it is confined to one limb. In this case, neurotomy may be regarded as a curative measure, if not in the absolute sense of the word, at least in its effects; since, through its influence, an animal unfitted for use from an obstinate lameness, may be set right in a moment, and become, together with his fitness for work, of a saleable value of some consideration.

The practitioner about to operate for navicular disease confined to one foot, ought to give warning, as an event possible to happen, that the limb not operated on will in its turn take on, after a longer or shorter interval, lameness similar to that of the other, according as the animal shows signs of such by his gait and his attitudes. In fact, it is usual for navicularthrites to attack, though in different degrees, both feet at once. Before the operation, the horse will go lamer in one foot than in the other. But, after the operation has been performed, the operated limb becoming insensible, the pain in the other becomes prominent, and now manifests itself in all its intensity, and is expressed by proportionate lameness. Sometimes these effects become evident immediately after the operation; at other times at

the expiration of 15 days, a month, six months, or a year even, according to the intensity with which the fresh limb is attacked.

Another possible accident to happen after neurotomy, as a consequence *indirect and remote* from the operation, but for which the practitioner ought to be prepared, are complications arising for the most part, in neurotomized feet, out of simple lesions, such as prick from shoeing, or corn, at first but superficial,—consequences that may be conceived likely or possible to happen in feet destitute of sensibility. In such feet as the neurotomized, one such lesion, simple at first, may become serious, and even irremediable; for it is but too frequent for such lesions to cause inflammation running into suppuration and issue, and even open-joint itself. It is this consideration that dictates to us that the foot which has undergone the operation of neurotomy ought to be the object of constant *surveillance*—that it should be carefully looked to both by groom and farrier, and by the latter about the heels of the hoof in particular, to see that there are no corns present; also, that the same smith ought always to shoe such a horse, and take great care in driving the nails into the posterior parts of the hoof.

To resume,—neurotomy, considered in its application to the navicular disease, is the last resource, by way of remedy, left in the hands of the practitioner for lamenesses consecutive on navicularthrititis; although it is not a resource positively certain in its results, but one whose happy effects are but provisional;—that, indirectly, neurotomy may prove the occasion of the most fearful accidents; yet, nevertheless, it is our duty to avail ourselves of it in practice as an extreme measure applicable to desperate cases; it being incontestible that it is capable of rendering useful services, which are the more certain the more simple the disease for which they are employed, as well as the more circumscribed it is, and the less complex; and that, after the operation, precautions are taken to put the neurotomized feet out of the way of violent percussions and traumatic lesions.

It is not only against navicular disease, in its various stages, that neurotomy may be employed with more or less advantage; it is likewise indicated as a remedy against all lamenesses which, as we have in a previous article suggested, *are the results of permanent pain in the foot, without too great structural alteration of the diseased parts*. Whenever, against diseases so characterised, the practitioner has exhausted to no purpose every resource art has placed at his disposal, he is warranted in making an appeal to neurotomy, and often



he will have reason to be satisfied of the happy results that follow.

So, for example, we have had recourse to the operation, with great advantage, for the removal of lameness arising from quittor in cart-horses, and generally the good effects have been permanent. In ring-bone neurotomy has proved much less successful; which may be readily understood, on account of the mechanical obstacles which the presence of ring-bone opposes to the free motion of the pastern joints.

Section of the plantar nerves is specially indicated—

1. In a case of contracted hoof of one or the other quarter, or both quarters together, providing the contraction be the sole cause of lameness, or that it is the effect only of some deeper-seated cause.

2. In a case in which the foot has been crushed by a wheel, the foot remaining afterwards the seat of violent pain, either from the coffin-bone being deformed by periostosis around it, under the influence of the violence it has sustained, or that the inflamed podophyllous tissue has augmented the keraphyllous horn, and that, from one or other of these causes, the vascular and nervous tissues of the foot remain under the operation of constant constraint.

We may, *à-propos*, quote here, as proof of the benefit to be derived from neurotomy, the case of a little mare *de manège*, who had the hoof of her right hind foot completely torn off by the wheel of a carriage, with comminution of the inferior border of the coffin-bone around its middle part. This beast possessed great value in the eyes of her proprietor, because, on account of her small size and her extreme docility, it served for his children to ride when they were taking lessons in equitation. It was very desirable, therefore, to restore it. Within ten months the hoof was completely replaced. But, at the expiration of so long a time, the results of the treatment employed appeared to have amounted to nothing; for the mare halted almost upon three legs, owing to the excessive straightness of the newly-formed hoof, as well as, probably, to the alterations in the coffin apparatus. Her owners, on this account, were going to get rid of her in the market at any price, when we recommended to make trial in the case of neurotomy. To this the proprietor consented. The operation was performed on the posterior branches alone of the nerves, save that the anterior branches were to be severed afterwards providing the section of the first proved insufficient. The result of the operation was such, that 15 days afterwards the mare returned to her work, not only completely straight in the limb, but scarcely showing any

unsoundness: at least in the ground of the *manège*, and now for more than one year this success has maintained, although she has not discontinued giving two lessons of equitation daily.

3. In fine, neurotomy is an excellent means of giving a finish to any operation on the foot, whenever it happens that such operation has left behind it lameness, the consequence of new conditions of structure and sensibility entailed upon the tissues through the inflammation under which they have been labouring. Thus, it is common to see horses going lame long after the cicatrization of a wound penetrating through the plantar aponeurosis, or after the healing of the wound necessarily inflicted in extirpation of the lateral cartilage of the coffin-bone, or after the extirpation of a *keraphyllocèle*, &c. In these cases of lameness lasting long after the cicatrization is accomplished, a great advantage may be obtained from the excision of the principal branch of nerve running to the painful part; and neurotomy may be employed, under parallel circumstances, with so much the more certainty according as no error has crept in as to the cause and seat of lameness, and as the exact knowledge of these two circumstances renders it possible to localize the operation to a precise point, leaving all the other parts of the foot in their normal conditions of nervousity.

In the announcement of this last principle we shall terminate this article: neurotomy having for its final aim the deprivation of sensibility, the property which protects them against exterior violence,—an operation, we may say, which will be the more perfect in proportion as it effects this object—viz., the extinction of pain, without doing more injury to the nervous system than is absolutely necessary. And this is the reason why *inferior* neurotomy (which is the ordinary operation practised) is to be preferred to the superior operation, whenever the case will admit of it.—*Réc. de Méd. Vet. de Mars*, 1853.

## Home Department.

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### ON THE COMMUNICABILITY OF ASIATIC CHOLERA TO DOMESTICATED ANIMALS.

By J. MARSHALL, F.R.C.S., &c.

(*From the British and Foreign Medico-Chirurgical Review,  
for April, 1853.*)

(*Continued from p. 344.*)

#### II. *On the Communicability of Cholera to Animals.*

IN this division of our subject, we shall notice the accidental and intentional inoculations of the human subject with the cholera-fluids.

1. *Experiments with Cholera-Blood.*—Accidental punctures received during the post-mortem examination of cholera patients, which must have occurred to numbers of medical men, as well as in the experience of Stilon, M. Le Gallois, Moreau de Jonnes, Pirogoff, Schmidt, and ourselves, are not, so far as we can ascertain, followed by any peculiar mischievous results. Exceptional cases, such as that of Mr. Penman, of Sunderland, in 1832,\* the only one we can find, may be due to general epidemic influence, or, if to contagion, to simple inhalation of the poison; so that, unless very numerous, and constant in their result, such cases are unimportant.

The inoculation experiments made on animals with cholera-blood taken from the *dead* body, are very numerous; and since undue reliance has been placed upon their negative results, we think it right to mention them here, although they are open to serious objection. Thus, Namias† took clots of blood from the heart, and inserted them beneath the skin of rabbits, closing the wound by suture. In many cases the animals died in from two to eight days, but not with symptoms of cholera. A clot from the blood of a rabbit already so destroyed, being in the same way introduced beneath the skin of another, also produced fatal results without cholera. If blood-clots from persons not dead of cholera were employed, the animals survived. In a subsequent series of experiments, it was thought by Namias that real cholera symptoms ensued; but this is more than doubtful, and, after still further trial, he himself hesitated to pronounce on the cause of death. The similar experiments of

\* Haslewood and Mordey, pp. 133-5.

† Omodei: *Annali*, Nos. 778-5.

Novati, at first negative, afterwards gave results of a more positive kind. Those of Borsani, Freschi, and especially the numerous trials of Semmola, were also followed by negative results. Meyer did not employ cholera-blood from the dead, but he made some counter-experiments, by the same method as Namias had used, with blood-clots from the heart of phthisical body, closing the wound in the rabbit's skin by suture. Of two animals, one died in thirty-six hours, the other in three days. He also put healthy rabbit's blood, twelve hours after it was drawn, under the skin of two rabbits; and blood from a pneumonia patient, sixteen hours after being drawn, in another. The wounds in the skin were closed with collodion as well as by suture, and the animals continued well. Hence, Meyer concludes correctly, that the fatal results of Namias' experiments were probably due to the state of the blood employed, to the amount of injury inflicted on the animals, or to the access of air to the wounds.

In August and September, 1849, we performed seven experiments with blood taken from the bodies of persons who had died in the collapse stage of cholera. The blood, diluted with about equal parts of distilled water, so as to permit the fibrin to be removed, was injected into the external jugular vein of the animals employed, from which a small quantity of blood was always first allowed to flow. The time after death at which the blood was taken, is stated in hours. The injection was always made within half an hour afterwards.

Experiments 1 and 2.—Blood 15½ hours: 2 drachms into a kitten; 1½ drachm into a rabbit. Both animals were seized with exhaustion and prostration, which lasted six hours. They refused food for thirty-six hours, and both were slightly purged on the next day. On the third morning they appeared well.

Exp. 3 and 4.—Blood 12½ hours: 2 drachms into a large rabbit; 4 drachms into a dog. The rabbit became depressed, and took no food until the third day, when it seemed as usual; no purging was detected. The dog was languid for a few hours, was purged of a yellowish slime, but ate a little meat in the evening, and was well the next day.

Exp. 5.—Blood 5 hours: 10 drachms to a dog, which, as in the last experiment, became languid, and refused to eat until the following day, when he began to feed, but looked ill. Fæces as firm as usual.—N.B. A kitten on which 6 drachms of the same blood was employed, died instantly, from over-distension of the heart, as no air was found in the veins.

Exp. 6.—Blood ¾ hour: 6 drachms into a dog. This animal suffered likewise from depression, laid himself down,



was purged during the first night of black and white fæces covered with yellowish froth, and gradually recovered the following day.

Ex. 7.—Blood 20 minutes:  $4\frac{1}{2}$  drachms into a dog. Symptoms similar, but not so severe. Recovery on following day.

To these observations we attach only a small significance; for one could hardly expect less from the introduction of a like amount of dead blood, charged with the products of its own decomposition within and without the body from which it had been taken. Magendie,\* Gaspard, Trousseau, Leuret, and others,† had already shown, that even ten or twelve drops of putrid animal matter, injected into a dog's veins, would cause prostration, excitement of the pulse, hard respiration, and a black or bilious vomiting.

Nor can we trace any choleraic symptoms to the accidental or intentional inoculations of the human being with *fresh* cholera-blood drawn from living patients. Thus, a complete immunity from mischief was experienced after the contact of recent cholera-blood with wounds of the fingers, by Dr. Sokolov, of Orenburg, often whilst bleeding his patients; by Schmidt, who during an experiment had the blood in contact with a fresh wound for ten minutes; and by Dr. Molison, at Newcastle, who pricked himself with a lanced just used in a very decided case of cholera. The negative results of the self-inoculations of Dr. Foy, at Warsaw, of Dr. Jannichen, of Dresden, and of MM. Veyrat and Pinel, are also well known.

Fruitless inoculations with fresh cholera-blood was made on animals at Warsaw.‡ Namias inserted perfectly fresh cholera-blood under the skin of two rabbits, in the way already mentioned, but without any evil result. Calderini inoculated a dog and two hens with cholera-blood yet warm, from a patient in the algide stage of the disease, also without any bad consequences. Eichstedt obtained no effects from the administration of some fresh cholera-blood to a rabbit by the mouth. Dr. Schmidt injected 13 grammes ( $3\frac{1}{2}$  drachms) of fresh defibrinated blood of a cholera patient, (who had had diarrhœa for twenty-four hours,) into the external jugular of a cat, which had already been confined in a box charged with the vapours of cholera-blood and dejections. In two hours the animal ate, played about, and continued well until the fourth day, when it was let loose. No vomiting occurred; fæces natural. Meyer injected into the external jugular of a large dog, about two drachms of the

\* Leçons sur le Cholera, 1832, p. 138, et seq.

† Gaz. Méd. de Paris, 1849, p. 73. ‡ Rapport de l'Acad.; Paris, 1832.

fluid part of one ounce of cholera-blood, taken from a patient who had been seized early the same morning, and died twenty-four hours after. No alteration in the fæces, nor any other symptoms followed during the next twenty-one days. Magendie injected various quantities of cholera-blood into dogs without specific effects; but he relates\* that his prosector, M. Loir, having removed eight ounces of blood from a living dog, replaced it by the same quantity of human cholera-blood defibrinated. The dog died in eight hours, with symptoms resembling cholera; *i. e.*, both vomiting and purging, but of what nature is not described. After death, the veins contained very black blood, and the intestines reminded him, in appearance, of those of a cholera body.

Our own experiments with fresh cholera-blood were six in number. The blood was, in all cases, conveyed in stoppered bottles, slightly diluted with distilled water, defibrinated, and injected within twenty to thirty minutes of its abstraction from the body, into the jugular vein of the animal employed.

Experiments 1 and 2.—Blood from a patient, late in the algide stage; died soon afterwards. Nearly 3 drachms into a large rabbit: animal drooped for a few hours only; then recovered itself. 6 drachms into a small dog: prostration for rest of day; bowels slightly relaxed; fæces opaque white, covered with greenish yellow mucus; no appetite until next morning, when dog was hungry. Diarrhœa through the day, yellowish. On second day, fæces quite natural.

Exp. 3 and 4.—Blood from a patient only 6 hours after seizure; collapse slight; death 23 hours after. 3 drachms into a cat: animal became quiet and suspicious; fæces at first hard, afterwards relaxed, blackish, and mixed with mucus. Next day, well. 4 drachms into a large dog: no symptoms but those of temporary weakness and refusal to eat.

Exp. 5 and 6.—Blood from patient 10 hours after attack, 15 before death. 3 drachms into a kitten six months old: only symptom, loss of appetite and prostration for some hours. 4 drachms into a dog: the same debility, indifference to food, and suspicious aspect, continuing for the rest of the day; fæces twice passed; very soft in the first night, the second more so than the first; recovery complete on the second day.

Two counter-experiments may be added to these, in which 4 and 6 drachms of fresh human defibrinated blood, from a case of injury to the chest, and from one of pleurisy, were injected into the veins of two dogs, without other effects than

\* *Leçons, &c.*, pp. 126, 138, 158.

those due to the operation : the animals ate food and appeared comfortable in half an hour ; fæces quite natural.

Now, it is important to note, that in those experiments where considerable quantities of *fresh* cholera-blood have been used by injection into the veins, care has always been taken to remove the fibrine from it. In this way, the injury known to result from the introduction of pure human blood into animals of a different organisation was avoided ; for, as Bischoff has shown, this mischief is almost wholly due to the fibrine in the blood. In M. Loir's experiments only, if blood had not previously been removed from the animal, was the quantity large enough of itself to cause injury in the way pointed out by Dr. Blundell and others. Nevertheless, freed from these objections, as well as from those which belong to experiments made with blood taken after death, the results of inoculation with fresh cholera-blood are not very decided. We can scarcely feel surprised that in the accidental incculation experiments on the human person mentioned above, and in the self-inoculations of M. Foy and his coadjutors, no result followed, and we confess that the importance attached to such negative results by Schmidt, seems to us much exaggerated : for a quantity of poison may exist in the entire blood, capable of killing, and then of transmitting a disease, and yet be inoperative in such small proportion as would be contained in a few drops of that fluid. The negative results of Eichstedt, Calderini, and Namias, may be due to similar defects as to quantity. Even to larger doses Schmidt denies any influence ; but what are  $3\frac{1}{2}$  drachms (the quantity employed), or even 10 drachms, out of a total quantity of several pounds of blood. In M. Loir's experiment only was the quantity employed (8 ounces) large enough to avoid this source of fallacy ; and in it, as well as in some of our own observations, cholera-like symptoms were produced by the injection of fresh cholera-blood. But even in these they are not sufficiently characteristic to prove the positive communication of the disease, for the symptoms may be referable to physical or chemical alterations in living cholera-blood, and not to the presence of a contagious zymotic substance, or true cholera agent. At the same time, we are disposed to agree with Dr. Meyer that it by no means follows, that a specific agent may not at some period or other, and especially at the beginning of the disease, exist in the blood. Hence, as indeed is also suggested by Dr. Meyer (who, we may remark, appears to be a decided contagionist) further inquiries are undoubtedly needed, on a greater variety and number of animals, to avoid the accidents of idiosyncratic or generic insusceptibility, and with larger quantities of blood, taken from a variety of patients, and especially at the very



onset of the disease, during the preliminary stage of nervous depression, even anterior to the premonitory diarrhœa, to get rid of the chances of an occasional absence or dilution of the poison. The contagious substance, he argues, may exist in too minute a quantity to operate, in certain patients and at certain periods; as is illustrated by the observation of Ricord, that syphilis cannot be communicated by the specific pus, if that fluid be too much diluted with the urine; and also by the experiments of Hertwig on Rabies, and more especially by those of Viborg on Glanders—a disease which certainly requires (according to his investigations) a very large quantity of the morbid blood to propagate it.

2. *Experiments with Cholera Ejections and Dejections.*—There seems no evidence to show that the mere contact of the vomited and dejected matters with the skin, is productive of evil results to man. In the course of their ordinary duties, and in post-mortem examinations, the gastric and intestinal fluids must incessantly act on the skin of the hand, as of nurses, or even enter wounds and punctures in the fingers of physicians and surgeons; but no sufficient proofs of resulting evil has been recorded. Dr. Jenisch, a Russian physician, rubbed his upper and lower limbs with the vomited fluid, put on and wore for eight days the shirt of a Cossack just dead of the disease, and bedaubed his face with the cold and clammy sweat of a dying patient. He had already had cholera, and experienced no harm from his experiment. Dr. Sokolov, in Orenburg, saw frequently the vomited matters spirted into the face of mothers or nurses of the sick, without any consequences ensuing. By M. Foy, at Warsaw, the vomited matters were *tasted* with impunity, but not *swallowed* (as many have supposed and repeated).\* Drs. Jannichen, Veyrat, and Pinel, also confined themselves, and with safety, to tasting the gastric discharges; and, so far as we can discover, no experimenters have even tasted, much less swallowed the alvine evacuations. Schmidt states, on his own knowledge, that a drunken man swallowed half a beer-glass of the vomited fluids, continued intoxicated, and was quite well afterwards.

Turning our attention from man to animals, we find several instances of inoculation experiments with the cholera dejections recorded by Namias, who introduced the fluid, by means of needles, under the skin of rabbits, but without effect. In Warsaw, also, the dejections had been introduced into the cellular tissue of animals with no results. We have ourselves injected the pure rice-water fluid (from the bowels, not

\* Du Cholera Morbus de Pologne; Paris, 1832, p. 3, et seq.



from the stomach) into the jugular veins of dogs and cats. In all cases the fluid used was freed from the flocculi and other finer particles by repeated filtration under cover; it was generally free from feculent odour, and invariably had an alkaline reaction.

Experiment 1.—Fluid colourless, having a faint smell, passed 13 hours after seizure. 5 drachms injected, one hour after its passage, into a dog: lassitude, slight purging for two days; fæces white, black, and greenish yellow, with slime of a leaden hue; appetite nearly as usual; recovery.

Exp. 2.—3 drachms of same fluid, half an hour later, into a cat: animal purged also; refused food until next day, when it seemed well.

Exp. 3.—6 drachms of fluid, colourless, smelling faintly, passed 10 hours after first attack, and injected into a dog three-quarters of an hour after it was passed: symptoms same as in experiment 1; but the dog was larger.

Exp. 4.—On a rabbit: fatal from accidental introduction of air: animal distressed exceedingly, and dead in 4 minutes.

Exp. 5.—Fluid colourless, but having a slight feculent odour when warm, passed 5 hours after seizure. 5 drachms injected 40 minutes after into a dog: animal languid, distressed, and moaning, for many hours; fæces relaxed for two days; recovery on the third day.

After voluntarily eating the fluid dejections of cholera-patients, both cats and dogs were observed, in several parts of Gallicia, during the first epidemic, to die with choleraic symptoms.\* In some cases, however, no harm resulted therefrom; and Schmidt also observes, that it is common to find dogs eating with impunity the vomits of their sick masters.† Four cases, to which we have already had to refer, may here be more particularly related. Lieut. K.'s dog, after eating a large quantity of the cholera-discharges evacuated by his master, died with symptoms and post-mortem appearances quite resembling those of cholera in man. The case recorded by Otto of Breslau, is one in which a dog is said to have followed his master into the hospital, ate of the vomit, taken cholera, and died. The facts of Dr. Meyer's case are these: about four o'clock in the morning, the master discharged, per anum, a fluid resembling chamomile tea, of which the dog, previously quite well, soon after partook twice; the dog then lay under the bed until two o'clock P.M.,

\* Sup. cit.

† We do not remember to have heard of dogs eating the evacuations in this country. May we assume this to be owing to the better-fed condition of the dogs, and to the different habits of the people, as compared with those observed on the continent, and in India?

when his master died. Hereupon the dog smelt his master all over, and was afterwards—i. e., about ten hours after swallowing the dejections—seized with a vomiting of a whitish fluid, and purging of a highly-offensive thin mass. He moaned feebly, lay with his paws out stiff, and died at nine at night. At the post-mortem next day, a perfectly *rice-water fluid* escaped in quantity from his mouth, and also from the stomach when it was opened. There was injection, both venous and arterial, of the peritoneal coat of the intestines; flocculent whitish masses covered the mucous surface, which exhibited a fine redness throughout from stomach to rectum. Peyer's patches were injected; many of the gland-capsules turgid and white. In the cæcum and rectum, the fæces were greyish-green; mucous coat also injected. Heart and veins contained blackish blood, entirely like that of human cholera-blood. State of the bladder not mentioned. In the fourth case, related by Dr. Sylvain de Barbe, a dog entered the house of a cholera patient, and licked up the vomited matters which were near the bed. Two days after, it became depressed after vomiting and purging, uttered cries, became stiff and cold, and died in forty-eight hours. Its young mistress, seventeen years of age, who had given it drink, had embraced it, and was licked on the face, (perhaps on the mouth) by the animal, had cholera two days after, and died in eight hours.

Lastly, we find experiments in which the vomited or dejected matters have been intentionally introduced into the alimentary canal of animals. In Warsaw and Galicia, this was done in the case of dogs, cats, rabbits, and fowls, but with contradictory results.\* By Eichstedt, leaves frequently moistened with the cholera dejections were given to two rabbits, which ate them greedily. The one, a strong animal, was taken with purging at night, had convulsions, and died next day. The stomach was full of food; the small intestines empty and contracted; the cæcum full of semifluid fæces; colon and rectum empty. Mucous coat nowhere particularly injected: blood not treacley; brain, cord, and membranes injected. The other rabbit recovered after some days, but was evidently indisposed, and ate nothing. A tablespoonful of the watery dejections was given to a third rabbit without any effect. A common fowl ate greedily of some cholera evacuations; in two hours it lay as if stupified, was roused only when touched, but could not walk for twenty-four hours; in a few days it recovered. Schmidt gave to a fasting cat, 30 grammes (about one ounce) of cholera de-

\* Arch. Gén. de Méd., t. xxviii, Rapports; also Œster; Med. Jahrbuch.

jections: it suffered no detriment, took its food as usual five hours after, and was well next day. Meyer made in all seven experiments of this kind. The dogs, whose evacuations had been watched several days previously, were kept fasting ten or twelve hours before the experiments.

Experiment 1.—Dejections passed at eight in the evening; patient died at night. 4 ounces of rice-water fluid, having a slight feculent odour, given to a dog, by mouth and anus. During the night, animal took no food; its bed was moistened either by urine or stools; next day he ate briskly, but died the following morning at six, without any action of bowels. On lifting him up, a *whitish fluid* gushed out of mouth; peritoneal coat of intestines pale, soft, and slightly injected; contents of stomach and small intestine a grayish-white mucus with epithelium; slight injection of mucous coat of duodenum; Peyer's patches especially marked, tumid, and many gland-capsules burst; injection and sugillation of large intestine, which contained pretty firm fæces. Blood brownish and clotted (not treacley, apparently). Kidneys congested; bladder not described.

Exp. 2.—Dejections of a patient in blue stage; had taken no remedies; died sixteen hours after. 1 ounce, almost like water, free from smell, given to a large dog by mouth. Animal ate and seemed well all day; fæces softer than before; in afternoon, passed a thin blackish fluid; at eleven in the evening was lying weak and moaning; died in the night, leaving no further signs of vomiting or purging.—*Post-mortem*: Muscles livid, containing black blood; peritoneal coat of intestines injected; in stomach a dirty-gray mucus; in small and part of large intestine, black fluid, consisting mostly of altered blood-corpuscles and epithelium; gastric mucous membrane red; punctiform redness of duodenum; Peyer's patches turgid; glands surrounded by red villi; mesenteric veins and right side of heart contained black, greasy blood; kidneys congested; in the bladder, a small quantity of urine, which coagulated with heat.

Exp. 3 and 4.—Dejections from a case slightly collapsed; offensive; patient died. 2 drachms to a dog one year old, and 1 ounce to another of same age. In the first, no effect produced. The other ate well, but for five days had repeated purgings of a thin, sweetish-smelling, black substance, like that in experiment 2.

Exp. 5.—Dejections passed twelve hours after attack; patient blue, died. 3 ounces, almost odourless, and filtered to remove flocculi, were given to the dog last mentioned, twenty days after the former experiment, which had caused

him a five-days' diarrhoea. Next day, animal ate and was lively; at noon, he had a loose, yellowish evacuation, and vomited. In afternoon, a *whitish* mucous fluid was ejected from the mouth; soon after, a more watery, yellowish motion. No cramps, coldness, or pulselessness noted; observations were interrupted; dog died in the night. — *Post-mortem*: *Whitish* mucous fluid in stomach and intestines; spread also on the colon; loose, frothy, yellowish matter in the rectum only; appearances of mucous coat as in experiment 1; bladder contracted.

Exp. 6.—Ejections of a pulseless girl. 2 drachms, clear, watery, with a few black flocculi, given to a dog. No effect.

Exp. 7.—Dejections, fifteen hours after attack, rather collapsed. 7 ounces, of a dirty white colour, and a strong smell, given six hours after its evacuation, and when the flocculi had subsided, to a dog, partly by mouth, partly by anus. At six the next evening, animal has passed soft, yellow fæces, and vomited a whitish fluid mass, containing its food. Up to eight o'clock he had eaten nothing; copious, watery, yellowish stools passed: but these gradually assumed their ordinary character.

The results of our own experiments, three with the ejections, and six with the dejections, given as soon as possible after they were passed, were very like those of Dr. Meyer.

Experiment 1.—Ejections twelve hours after attack; saline treatment: no calomel; death. 1 ounce, white, slightly acid, to a small dog at noon. Animal ate as usual; at six P.M. seemed languid; in the night passed urine and firmish fæces. Next day, ate very little food; had two loose yellowish stools; passed some urine; next night and day motions firmer.

Exp. 2 and 3.—Ejections four hours after a severe seizure: no treatment up to that; fatal. 10 drachms, slightly acid, to a cat. Animal as usual for twenty-four hours; then purged several times, until the third day. 5 drachms of same fluid to a guinea-pig. Animal continued well until next day, when it passed hard and loose fæces mixed, and appeared unnaturally quiet; afterwards recovered.

Exp. 4.—Dejections of same patient as in experiments 2 and 3, passed at same time. 3 ounces, pale-yellow, watery, smelling slightly, alkaline, containing a few flocculi, given to a white terrier at eleven o'clock A.M. Animal remained well all day, and ate bread and meat. In night, passed an ordinary, whitish, firm motion; then had loose fæces, black, yellow, and greyish slimy substances mixed, four times up to the evening of the second day; ate food, but had become very thin. On the third day, at 10 A.M., 3 ounces more of dejec-



tions, colourless, flocculent, slightly nauseous, from another patient, six hours after seizure, were given to the dog; he ate afterwards; in the night he passed pale-yellowish frothy stools, and had vomited his food, and a whitish slimy mucus. During this day he ate nothing, was very thirsty, continued to be purged, at last of a *quite cream-like* substance; walked unsteadily, crept into a corner, and whined. No cramps, blueness, or coldness observed. In the night he died.—*Post-mortem*: Stomach contained 2 ounces of clear whitish mucus. Intestines contracted; containing the *same creamy substance* as that which had been passed; no coloured fæces. Stomach not very red; whole intestinal tract reddish; Peyer's patches very distinct. Blood dark and clotted; not distinctly tarry. Liver dark; gall-bladder with bile; kidneys dark; bladder contained 2 drachms of muddy urine. The creamy substance passed and found in intestines was neutral or slightly alkaline; diluted with water, made a *smooth* emulsion, like rice-water motions, but *without the flocculi*: contained epithelium, granular cells (mucous corpuscles?), amorphous matter, and fatty particles, mixed with traces of semi-digested starch-cells and muscular fibre.

Exp. 5.—Dejections, six, eight, and eleven hours after seizure of patients; rice-water.  $3\frac{1}{2}$  ounces in all, given in three doses, at intervals of two days. Purging at first green, then whitish, and frothy, then *creamy*; vomiting on fourth day. Death on fifth.—*Post-mortem appearances*: Stomach and intestines contracted; contents cream-like, free from bile; bladder empty; blood thick. Creamy substance, like that in dog (experiment 4), but contained ova of an entozoon in moderate numbers; but of course no fragments of animal food.

Exp. 6.—Dejections, thirteen hours after seizure: saline treatment; calomel. 10 drachms to a rabbit. Purging for two days; recovery.

Exp. 7.—6 drachms of same to a guinea-pig, with the same temporary results.

Exp. 8.—Dejections six hours and fourteen hours after seizure: saline treatment, and calomel. 4 ounces, clear, and allowed to settle, to a cat, in two doses, on two successive mornings. Vomiting, purging, and death. Fæces loose, blackish, then yellow, then *creamy or milky*. Microscopic characters as before; ova of entozoon numerous.

Exp. 9.—Dejections, all passed in blue stage. 12 ounces in all, having been allowed to settle, given to a goat, at three times. The only effect produced was softening of the motions; the animal ate well.

The subsidence of the epidemic put a stop to further experiments.

From this long list of facts what conclusions can we draw as to the existence of a specific contagious substance in the cholera evacuations? In the first place, whenever only small quantities of the vomited or dejected matters can have come into operation, as in the contact of these with the skin, or with wounds in the skin, or in the inoculation experiments of Namias with needles, or in the mere tasting of the vomited fluids by M. Foy and his coadjutors, entirely negative results have followed. As to the last-named experiments of M. Foy and others, they never can be of any value, for their consequences cannot be distinguished from the effects of epidemic influences, and they never can be sufficiently numerous to overcome objections on the ground of the want of susceptibility. The non-occurrence of symptoms in the drunkard is not a fact of much importance; and as to our own experiments on the effects of the filtered dejections introduced into the veins, though they are interesting as showing what may happen in such cases, it must be remembered that the phenomena produced might be entirely dependent on simple and not specific poisoning. Lastly, we have to compare the cases in which the cholera evacuations were administered by the mouth or anus, by Eichstedt, Schmidt, Meyer, and ourselves, with each other, and with the accidental cases of Lieut. K.'s dog, and the dogs observed by Otto, Meyer, and Dr. Sylvain de Barbe. From these it certainly appears, that although when small quantities of the dejections were employed little or no effect was produced, serious consequences generally followed the administration of larger doses. Eichstedt refers the results in his experiments to a poison acting on the nervous system. Schmidt, who wrote, however, without a knowledge of Meyer's experiments, denies the influence of the evacuations altogether. Meyer, with whom our own observations would lead us so far to coincide, concludes that the cholera-stools are capable of producing vomiting of a whitish mucus, and purging of a blackish or yellowish fæces; and that these symptoms are sometimes followed by death with asphyxia, and with post-mortem appearances, very much like those observed in the cold stage of cholera among men. In some fatal cases, we would add, the evacuations of the animals experimented on have a creamy or milky character. It will further be seen, that although the phenomena produced are generally proportionate to the quantity of evacuations administered, such is not always the case; a discrepancy which Meyer suggests may depend on idiosyncrasy of the animal,

or more likely *on the dilution* or absence of the deleterious agent. The presence of flocculi in the evacuations employed does not seem necessary to the production of the morbid phenomena, for the most remarkable of these were produced by specimens containing none or very few. The results cannot be due to the inorganic constituents of the dejections, for these are innocuous, and Meyer prepared a solution corresponding with Wittstock's analysis, and gave it to an animal, without any bad results. Neither can much be attributed to the admixture with the evacuations of remedies given to the patients, for quite as positive effects ensued where no remedies had been employed. Finally any supposed influence of coincident causes is rendered improbable by the number and agreement of the whole series of experiments. That some deleterious agent exists in the cholera evacuations is thus, we think, abundantly proved; we think, also, that the quantity of this agent may vary in different evacuations. But is it *peculiar*? is it *specific*? Let us here direct attention to a counter experiment of Meyer's and three others made by ourselves. Meyer introduced into the stomach of a dog an ounce of highly-coloured bilious motion, passed from a patient who had had diarrhœa for three days, and who died three weeks after with *medullary disease* of the stomach and mesenteric glands. The animal next day had bilious vomiting and purging and died in seventeen hours.—*Post-mortem*: Redness of the gastric and intestinal mucous membranes, especially of the villi; Peyer's patches evident; contents of intestines, yellow frothy mucus; liver dark; bladder contracted; blood dark. We ourselves gave a dog 6 drachms of a yellow, offensive fluid evacuation, from a patient suffering under cancer of the mamma. In about a quarter of an hour the dog vomited, drank freely of water, and was soon well. Ten drachms of a lemon-coloured, frothy, sour motion from a phthisical patient were given to another dog; efforts at vomiting began in five minutes, and were soon effectual; he shrank away, ate some meat, and was no further distressed. About 4 drachms of a yellow, frothy, sulphuret-smelling evacuation from common diarrhœa were given, diluted with equal parts of water, to the same dog, about one week afterwards, but he was speedily sick, and appeared to be then uninjured. In none of these cases were the fæces of the animal changed. These experiments, however, suggest, that the effects of the administration of cholera evacuations may be due, not to any *peculiar* poison, but to the mere introduction of some deleterious substance common to any evacuation, into the upper part of the alimentary canal. But there are several considerations to be remembered here—viz., the great difference



between the disagreeable, feculent, and almost fetid dejections employed in the above-mentioned counter-experiments, and the rice-water discharges of cholera; the fact that the *vomited* cholera fluid, which would not, from its nature, be so repugnant to the stomach of animals, and which has been eaten by them frequently and voluntarily, has produced as positive results as those caused by the dejected matters; the more marked occurrence of an interval before the commencement of the symptoms produced by the use of the cholera fluids; and, lastly, the support given to inferences drawn from the experimental cases in which the cholera evacuations were employed, by the phenomena of the accidental cases recorded by Otto, Meyer, and Sylvain de Barbe, and by the case at St. Ives, Cornwall; unless, indeed, we regard all these last as examples of not specific coincident diarrhœas. It is evident, however, that further and comparative observations are needed before we can positively affirm that the deleterious substance in the cholera evacuations is *peculiar* to them; although Meyer, indeed, perhaps too sanguinely, maintains that from the entire evidence this is probably the case. Until, however, this peculiarity be proved to exist, we are scarcely entitled to advance to the further question—Is this deleterious agent a specific poison capable of reproducing Asiatic cholera? in other words, Is it the cholera agent sought? Certainly, all the symptoms of cholera have not been produced by it; unequivocal rice-water discharges, blueness, coldness, cramps, tarry blood, and non-secretion of urine, are not yet in the catalogue of its effects; and so long as we know so little, as a ground of comparison, of the pathology of *natural* cholera in animals, we cannot draw safe conclusions from the phenomena produced by the administration of the cholera evacuations.

3. *Exhalations from Cholera Patients, their Blood, and their Evacuations.*—It is scarcely necessary to repeat, in regard to cholera symptoms following ordinary exposure to exhalations from living or dead bodies of cholera patients, that unless they occurred very frequently, which is not the fact, they could not clearly be distinguished from those attributable to epidemic influences. Dr. Jannichen, M. Foy, and others, however, purposely inhaled the breath of cholera patients without harm. Drs. Deynert and Mavroyeïn did the same at Moscow, where also an attendant is said to have ridden for hours together in a close carriage with sick people, and yet escaped all evil consequences. (Zoubkov's Report.) Persons have slept in the cholera wards as well as upon the cholera beds (Searle and others), even with a pillow near them still moistened with the vomited matters (Zoubkov), and have



worn the linen of the dead (Jenisch and others), all with perfect impunity.

It is remarked by Schmidt, that he worked for hours in a warm atmosphere charged with the vapours from cholera-blood and discharges, whilst engaged in analysing these fluids, and yet without any inconvenience. Other experimenters must have had the same experience. Schmidt placed a cat in a ventilated box, having a false perforated bottom, under which he put 1 litre ( $1\frac{1}{2}$  pint) of cholera dejections, and 30 grammes (about 1 ounce) of cholera-blood from a patient yet living, 30 hours after his seizure. No bad symptoms arose in the cat, during a 48 hours' confinement. Two subsequent trials with another cat, one of four days', the other of three days' duration, gave similar negative results. Just before the disappearance of the epidemic from London, we ourselves confined two rabbits in close hutchies, with pans containing cholera dejections. The animals suffered in no apparent way.

The absence of effect in all the preceding cases, both in men and animals, suffices to show, that exhalations in small quantities from the breath, the skin, the blood, or the evacuations, are not deleterious; and that, in larger quantities, injurious effects, if possible, may be counteracted by non-susceptibility. So far as animals are concerned, further experiments are necessary.\*

There is little doubt, that *if ever*, under circumstances of great concentration or otherwise, cholera be extended by contagion, it is probably sometimes communicated by emanations of some kind or other passing through the air, and acting on the gastro-pulmonary mucous membrane, reputed examples of which being very abundant, need not be quoted here. One set of facts should not, however, be altogether neglected—viz. those relating to the supposed infectious character of the clothes of cholera patients, probably soiled with the evacuations and vomits, charged with exhalations from the skin and lungs, and left to dry or to be packed-up without having been washed. We will not do more than allude to the many instances in which, during the progress of the disease across the waters of the Black Sea, the Baltic, the German Ocean, the Channel, the Mediterranean, or the Atlantic, cholera has been supposed to have been conveyed by means of the dried, packed-up, unwashed bedding or clothes of those who have died on board ship of the disease. These general statements, though confessedly resting, for the most part, on unscientific testimony, and generally explicable by reference to a prevailing epidemic influence, are suffi-

ciently numerous to be at least impressive.\* Of particular instances of a striking kind, we shall mention two. Fourteen days after the death of a person from cholera, at Leeds, a box, containing this person's clothes, was opened by a man, one evening, at Monkton, twenty miles off. The next day the man was seized with cholera, of which he died on the fourth day. A husband, ten months after his wife's death from cholera, at York, opens a drawer for the first time, which contained her trinkets and clothes. He wept over the cap in which she died; took cholera that evening, and died next day.†

To test this most important point we had projected some experiments on animals with linen supposed to be infected, or purposely charged with cholera fluids. We had also intended to try the condensed perspiration and breath; but whilst gradually advancing in our inquiry, the epidemic of 1849 happily ceased in London.

Having expressed our opinion freely on each set of facts, as they have now been brought before the reader, and having stated enough, we hope, to vindicate the importance of the inquiry, we refrain from the recapitulation of formal conclusions. We desire only to reiterate our belief, that, though short of actual proof, the evidence, both general and particular, accidental and experimental, is not unfavorable to the notion of a certain susceptibility of the dog, and perhaps, too, of the cat, to the influence of the cholera-agent, whatever that may be. In future experiments, therefore, the former animal should probably be preferred. Sufficient trials, we think, have been made of small quantities of cholera-fluids, and also of *dead* cholera-blood; but large quantities of the blood, and of the various secretions and excretions, taken at very early periods of the disease, have yet to be fairly tried. So also should linen, saturated with the discharges and exhalations, and shut up so as to be allowed to dry spontaneously. Careful observations, moreover, should be made on the diseases of animals during the cholera visitations; and the whole inquiry must also be repeated by careful collateral investigations in ague, yellow fever, plague, typhus, marsh, and other fevers, and the exanthemata.‡ May we hope, when this is accomplished, patiently, honestly, and skilfully, the microscope

\* Consult Van Swieten, Cullen, Meade, Pringle, and Lind.

† Simpson on Cholera, pp. 137-9.

‡ Parturient women, suffering from decided cholera, either fatal or not, have given birth to infants, which have been seized with that disease, *immediately* or after a *few hours*, and have rapidly died. (Lancet, 1834-5, vol. ii; 1849, ii, pp. 131 and 240.)

and the test-tube assisting, that the mystery which now veils the causes of cholera and other cognate pestilences, may, to a certain extent, be cleared away? The presence of some material and communicable poison, as the agent of this disease, may or may not be thus established. If it be, it will no longer be impossible, as now, to discuss with advantage its nature, its properties, its seat, and its mode of extension. Particularly, we might learn whether it acts on the organism without entering the blood,—or passes into that fluid and is there destroyed,—or passes through it into one or more of the secretions, and in this way is simply transmissible,—or whether it multiplies or reproduces itself, on the surfaces, in the blood, or in the secretions eliminated from that fluid, and is thus a truly contagious poison.

In conclusion, we especially tender our thanks to Dr. Meyer for his vigorous and interesting essay, without the appearance of which our own imperfect and interrupted experiments, unless somewhat extended hereafter, would probably never have been published.—*Brit. and For. Med.-Chirurg. Review*, for April, 1853.

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## PAPERS RESPECTING PLEURO-PNEUMONIA IN CATTLE.

By Dr. WILLEMS, of HASSELT.

*Memorial on the Epizootic Pleuro-Pneumonia of Cattle; by M. Louis Willems, Doctor of Medicine at Hasselt.*

To the Minister of the Interior,

Sir,—For a number of years, the public weal, both in our own country and in nearly all the states of Europe, has been grievously affected by one of those devastating scourges which are called Epizootics (cattle epidemics), and which spread alarm wherever they descend, to shake the firmest support of governments and of nations. The ox represents the destinies of agriculture; here is its emblem; he plays a grand part in the annals of civilization; he serves for the material support of the people; and governments and private persons should unite all their efforts and their information to improve and preserve the bovine race, and to avert from it all causes of destruction.

Since 1828 there has existed in Belgium an epizootic disease, which came to us from the south of Europe, where it had existed for a very long time. Different names have

been given to it; but it is now well known to all who attend to such matters, by the name of "Exsudative Pleuro-pneumonia," a denomination properly applied to it by a learned Belgian professor, M. Gluge.

You know, Sir, that Hasselt is unhapily distinguished for having always a large number of beasts affected with pleuro-pneumonia. This disease was introduced to us from Flanders in 1836, by some beasts purchased of the merchant Moras, and first brought to my father's stables, and to those of M. Platel, distiller. From that time to the present, all the distillers have suffered considerably by it, and many small farmers have been entirely ruined. The disease, at first epizootic amongst us, has become enzootic, and decimates a considerable number of beasts of the bovine race every year.

Terrified and grievously affected at the sight of the almost daily ravages committed under my eyes upon beasts affected in the highest degree with pleuro-pneumonia, and injured, moreover, in my own interests, I considered it my duty, for the sake of humanity, for the advantage of my fellow-citizens, and for my own interest, to apply myself to the study of a disease of which a permanent focus of infection was in existence near to me.

Physician to mankind, I have drawn from medical science, as applied to man, whatever information it could afford on this matter, upon the same science as applied to animals. I have studied the disease under all its phases, its nature, its causes, its symptoms, its treatment. I have submitted animals to various known and cried-up methods of treatment; and have myself ventured to try many new medicaments. I have found, among others, the *black sulphuret of mercury* of remarkable efficacy, in doses of from two to three drachms, in twenty-four hours, accompanied by half-a-drachm of calomel; the whole suspended in a thick mucilage of gum, and administered, above all, at the first stage of the disease.

Of twenty-three beasts which I treated by this method nearly a year ago, I cured fifteen. I beg the veterinary doctors to follow my example in the use of this medicament. The idea of employing it struck me from my studies and researches upon the nature itself of the disease, which I consider to be a general disease; a disease in which the blood is vitiated, either primitively, or in consequence of the lesion of the lungs, which is always constant—always the same—always that remarkable marbled hepatitis. I have tried many preventive measures; but I shall speak of all that—in a memorial which I am preparing upon pleuro-pneumonia, and which I shall address to the proper authority. At present,



Sir, I only wish to call your attention, as well as that of competent men, to a single preservative measure, which of itself is worth more than all the others. All curative measures, however efficacious they may be, are powerless in setting an obstacle to the evil, and in repairing the considerable losses which it occasions every day. The beasts which are cured by treatment fall away rapidly, and recover but slowly and with difficulty from the attack they have sustained.

The only true and good measure that all should endeavour to discover is a preservative measure. This measure, Sir, I believe I have found. The method that I have pursued is very rational and very simple in its execution, and there will be said of it perhaps, when it becomes known, what was formerly said to Christopher Columbus, who had just discovered a new world: "That nothing was more simple and more easy to imagine and to put in execution."

The measure I have made use of is sanctioned by the authority of facts. From the day when I timidly employed it for the first time, after having matured it for a length of time in my ideas, it has never for a single instant failed in practice.

My observations and experiments have been made upon a large scale: my father has constantly in his stables, from 80 to 110 head of large cattle, which were all at my disposal to serve for my experiments. These experiments date from February 10th, 1851, and have been made upon 108 individuals of the bovine race: a note setting forth my experiments has been deposited in the hands of the proper authority for many months.

As I have had the honour to tell you, pleuro-pneumonia has raged with intensity in our stables, and in those of all the distillers and small farmers of the town and its vicinity, from 1836 to the present time.

From the moment of the appearance of the scourge, we have never been free from its strokes; we have had a considerable number of beasts diseased, and have suffered important losses.

Emboldened by misfortune, I tried a measure which ought perhaps to have turned to my disadvantage; I made my experiments at first clandestinely, without my father's knowledge, for fear of unfortunate results; and, in fact, whether from ignorance, or from the improper application of my remedy, I killed three fine oxen of the aggregate value of 1000 francs (40*l.*) But against these reverses I experienced some success, and I asked my father's permission to continue

my experiments. The experiment that I made at my own expense has now completed its course, and all the inconveniences of my new method are overcome. These experiments, of which I shall give a detailed account further on, were continued successively upon 108 beasts, and all of them, to my great satisfaction, were preserved from the disease. In order to make a counter experiment, fifty beasts which had not been experimented on were distributed among the others, and of these fifty beasts seventeen became diseased with pleuro-pneumonia. I shall give an account of this in a few words further on. Here then are stables that had never been free from pneumonic diseases since 1836, and which have been so from February 10th, 1851, to the present time. How can the singular circumstance of 108 beasts, to which the remedy had been applied, continuing free from the disease, while in the same stables, under absolutely the same conditions, placed indiscriminately among the others, of fifty beasts to which the remedy had not been applied, seventeen became diseased, be explained otherwise than by the efficacy of the remedy?

A particular and very important circumstance, which all fatteners will know how to appreciate, and to which I further call your attention, Sir, is that the beasts subjected to this treatment are in some way entirely safe from epizootic influences, and fatten better and more rapidly than those to which the remedy has not been applied, although not diseased.

Wishing to preserve the secret of my remedy, you will conceive, Sir, that I have not been able to make experiments beyond my father's stables, which for the rest afforded me an ample field for the purpose. I may add, however, that my father's head distiller, whose residence is between the stables of M. Nys, distiller, in which the disease always prevails with great intensity, having had two cows successively diseased in the same stable, asked me to administer my remedy to a third which he had just bought, and for which he dreaded the fate of the two former; I did administer it: this cow has remained in a state of perfect health during the nine months he has had it.

This, Sir, is a general view of my experiments and success. I have succeeded in preserving my father's stables from the disease during more than a year, while everywhere else around us it was raging with severity. This benefit which I have obtained for my father's stables, I desire to see diffused through all the stables in Belgium and other countries.

I shall now give you the details of what I have done, and

how I have done it. 'I have addressed you, Sir, with confidence, because I know all the solicitude and the interest that you take in agriculture, the source of the material life of a people. I hope that, according to your custom, you will entertain with favour and eagerness a new means of riches and prosperity for agriculture. I dare think that you will give me the opportunity of confirming my experiments; that you will do me the honour of having the value of my method judged by the most competent men; the means you will find better than I. You might, for example, cause my experiments to be made under the control of experienced men well acquainted with the question, in the stables of the town where I live, and where the number of diseased animals is frightful. I desire that the happy results already obtained may be the prelude to new successes; and I hope, for the good of our dear country, and for that of other nations afflicted like us by this scourge, that agriculture will find therein some new resources, and that pleuro-pneumonia will be arrested in its destructive course.

My preservative measure, Sir, consists in inoculating sound and healthy animals with the disease itself, by means of the blood and liquids pressed from the lungs of an animal diseased with pleuro-pneumonia.

While studying pleuro-pneumonia I have constantly endeavoured to throw light upon a point exceedingly important and still very obscure, that is to say, the contagion of the disease, admitted by some, rejected by others. I entertained doubts *upon the real contagion* of the disease, and these doubts were to me an additional reason for undertaking new experiments and trying inoculation. The question of inoculation is not yet settled; the inoculations of Dieterichs, to prove contagion, remained without result; to the inoculations of Vix, pneumonia succeeded; but what kind of pneumonia? probably that which follows phlebitis, or a general infection resulting from the introduction of putrid matters into the blood. The question of inoculation is resumed at present in France by the Administrative Commission, appointed to study the pleuro-pneumonia of cattle: a commission to which the French government, which is so liberal when the interests of agriculture are threatened, grants considerable sums in order to study the scourge and make experiments. This commission, composed of eminent men, proposes as the first question of its programme, experiments to be made.

"A primary series of experiments should be made to ascertain whether pleuro-pneumonia can be transmitted by inoculation with the blood and with certain products of

secretion taken from diseased animals and applied to healthy ones."

This experiment, which the Commission in France proposes to make, I have studied in all its details, and I have decided it. The Commission did not suspect, probably, that this proceeding would become, instead of a means of transmitting the disease, one of extinguishing it.

A second reason which induced me to inoculate healthy animals with the disease, and which indeed suggested the idea of doing so, was that in medical art, as applied to mankind, epidemic and contagious diseases are often inoculated, and become by the very act of inoculation mild.

The third and the principal reason which decided me to make my trials of inoculation was, that since 1836, we had had in our stables more than 500 beasts diseased with pleuro-pneumonia, many recovered with or without treatment; and I never observed that a beast that had recovered, had the disease a second time; and I can say with Massie, a celebrated physician, who found himself in the midst of an immense focus of contagion (in his memorial addressed to Vicq-d'Azyr, speaking of contagious typhus), that experience had taught him that an ox, which had recovered from the epizootic disease, is of an inestimable value, since he braves with impunity all the dangers of contagion. There may, perhaps, be some exceptions to this rule: but if there be, they must be exceedingly rare.

For the rest, the observed fact, which I assert here, is admitted by almost all observers. M. Yvart, inspector-general of the veterinary schools in France, reports facts which prove that the disease never attacks the same beast twice. M. Lafosse, of Toulouse, says the same; MM. Verheyen and Pétry, two learned Belgians, perfectly well acquainted with the matter in question, are of the same opinion.

I shall first describe the mode of operation, then give the details of my series of experiments, and I shall follow them up with some important observations and with my conclusions.

#### MODE OF INOCULATION.

I take the liquid pressed from the lungs of an animal recently slaughtered, or of one that has died of the disease; I plunge into it a kind of large lancet; then I make two or three punctures at the lower extremity of the tail of the animal that I wish to preserve from the disease; *a single drop of the liquid is sufficient to make the inoculation.*



I have made inoculations with the saliva and other liquids, but I do not approve of them; I shall speak of them further on. I have inoculated in other parts than the tip of the tail; in the detail of my observations, the inconveniences of these different modes of proceeding will be stated.

After an inoculation with the virulent liquid, which usually goes from twelve to thirty days, the phenomena of the inoculation manifest themselves, and have at times lasted in some animals as long as two or three months. The disease which is inoculated is not a purely local one: the autopsies of the animals that died in consequence of the inoculation, have proved this to me; and then the uneasiness which the animal experiences often some days after the inoculation, is not in proportion to the slight local injury. When the first phenomena manifest themselves, the animal suffers, it is less lively, eats less; when the place where the inoculation was made is touched, the part is usually sensitive, then it swells, becomes inflamed, and greatly indurated; this inflammatory hardness of the morbid tissues sometimes extends to a distance, and when the inoculation has been made in an ill-selected situation, death may ensue. In the swollen part there is made an excessively abundant deposit of exsudated matter, absolutely as in the lungs of diseased animals. This swelling often dissipates itself, often also mortification seizes it, and shreds of the skin are sacrificed, sometimes even the whole tip of the tail. There are still in our stables at least ten oxen which have lost the tips of their tails in this way. When all the phenomena of the inoculation succeed each other regularly, the animal suffers but little uneasiness, and soon after it is more cheerful than before, it has better health, and fattens more easily, as I have had the honour to say.

I have examined various pathologic specimens (see Fig. 1, p. 7), with the object of studying and elucidating the question of inoculation: my investigations have been principally directed to diseased lungs, and to a kind of tubercle hitherto overlooked, but which I have, nevertheless, constantly met with upon opening the dead bodies of animals that died from pleuro-pneumonia. These tubercles, scattered throughout the intestines, but principally in the lesser one, are of a size varying from the head of a pin to that of a large pea, of a yellowish or greenish colour; they are seated in the sub-mucous cellular tissue, and partly in the thickness of the mucous membrane of the intestine. They do not appear to have any tie of origin with the glands of Peyer or of Brunner. Are they hypertrophied follicles? Nothing ap-

pears to prove it; no opening is perceived in them. They are formed of a homogeneous, whitish matter, more or less hard, showing under the microscope granulous kernels and an innumerable quantity of small elementary corpuscles, which enjoy a molecular motion, and which are also met with in diseased lungs, as I shall show immediately. I have examined under the microscope parts of the lungs of animals diseased with pneumonia, at a magnitude of 540 times the diameter, which is much more considerable than that employed by Professor Gluge, in his beautiful anatomico-pathological researches upon pleuro-pneumonia. The exsudated matter presented no structure; I met with no other anatomical elements than granulous kernels and elementary corpuscles, provided with a particular motion, the whole pretty much resembling an inflammatory exsudation, remarkable for its great quantity. The plastic exsudation is formed in so rapid a manner, and in such considerable quantity, that anatomical elements of a superior development to that of these kernels could not be produced in them; consequently no cells or globules of pus (I have never found any) or fibres are ever met with there. The energy of the cellular tissue appears to exhaust itself upon too large a quantity of exsudated matter for the latter to be carried to a higher degree of organization. It is the same as is observed sometimes in the regeneration of the tissues; in the section of nerves, for example, and in the fracture of bones; when the exsudated liquid is in too large a quantity, or the fragments are too much separated, a part of the liquid being beyond the circle of action of the energy of the existing tissues, always remains at an inferior degree of development to that of the neighbouring tissues. What is most important to be shown here, and of which no one hitherto has spoken, is, the existence in diseased lungs of small corpuscles, endowed with a molecular motion, which appears sometimes to be made in a given direction. (See Fig. 2, p. 7.) They are like corpuscles in process of formation, the motion of which resembles that of the granules of pigment, as well as those which surround the corpuscles of the tuberculous matter in man. In all my microscopical researches I have constantly found the same.

Wishing to know whether these corpuscles exist in any other substances than those already examined, I submitted to the microscope:

1. The saliva of a healthy ox under epizootic influence.
2. The saliva of a diseased cow towards the third stage of the disease.
3. The urine of the same cow.

4. The blood of the same cow.
5. The blood of a healthy ox under epizootic influence for five months.
6. The blood of a healthy ox not under epizootic influence.
7. Parts of the liver and of the large right pectoral muscle of the abdomen from the diseased cow.

In none of these matters did I find the small corpuscles with molecular motion, while I have constantly met with them in the lungs and in the intestinal tubercles of animals affected with pleuro-pneumonia. That, then, is the principal seat of the disease. Are these corpuscles primitive, or consequent on the disease? This question cannot be decided now; I only wish here to verify their presence in pleuro-pneumonia.

I examined with the microscope parts of the derma of the external skin (and which I still have in alcohol) from one of the oxen that died in consequence of the inoculation. I found there the same microscopical elements, and the same chemical characters as in the lungs of the animals diseased with pneumonia.

To make certain of my observations, and to have them tested, I sent, on the 12th February, 1852, a portion of the skin and of the underlying tissue from the animal that died the previous evening in consequence of the inoculation, to M. Vankempen, a distinguished anatomo-pathologist, for examination, and here is what the learned Professor wrote to me:

“I have just examined the specimens you forwarded to me, and this is the result: I recognised in them small corpuscles endowed with a particular molecular motion; they are of very various sizes—some are punctiform, others show a very distinct central light—and they resist the action of acetic acid. In the same piece of skin I met with assemblages of granulous kernels (see Fig. 3, p. 8) in which there is a small nucleus. These kernels resist the action of acetic acid, and that is the precise character of kernels. It is absolutely as if there had been an abundant exsudation in the derma.”

Be pleased to observe, Sir, that M. Vankempen was at the time entirely ignorant of the inoculations that I was practising, and that he did not know of what disease the animal had died.

The physical characters, the microscopical examinations, and the chemical analysis of the part where the inoculation was made, prove that the local artificial disorder produced by the inoculation has the greatest resemblance to the com-

plaint, and the morbid lesions which are observed in the lungs of animals that have become diseased under the epizootic influences of pleuro-pneumonia.

### EPIDEMIOLOGICAL SOCIETY.

PRESENTATION OF PLATE TO MR. TUCKER, FOUNDER AND SECRETARY OF THE SOCIETY.

ON Thursday, the 14th of April, Dr. Babington gave a *conversazione* to the members of the Epidemiological Society and their friends. In the course of the evening, Dr. Babington presented to Mr. Tucker a silver plate, with an appropriate inscription, intended to be affixed to a *secretaire*, as a testimonial of the sense entertained by the President and other members of the Society of the value of Mr. Tucker's services as one of the honorary secretaries, and especially of the honor due to that gentleman as the founder of so important a society. In presenting this testimonial, Dr. Babington expressed himself as follows :

"A few friends, including myself, being deeply impressed with the zeal and ability which you evinced, first in originating, and subsequently in establishing, the Epidemiological Society, and admiring the untiring energy which you have since exerted in endeavouring to promote its objects,—have felt anxious to manifest their sense of your merits and services by requesting your acceptance of some token of their regard.

"It is with much pleasure, therefore, that, in fulfilment of their wishes, and my own, I present you with this inscription, to be affixed to a *secretaire*, which, however small its intrinsic value, we have selected as an appropriate offering for one who has so efficiently fulfilled the very arduous duties as honorary secretary to our society."

To which Mr. Tucker replied :

"I accept with much pleasure the testimonial of approbation for the services it has been my pride to render to the cause in which you and others are so warmly interested. It is the cause of suffering humanity. I shall always look back with great satisfaction at having been the originator of a society which has displayed, even in its very infancy, its capability of doing great good.

"To those who have joined with you, Mr. President, in presenting me with this mark of their esteem, I hope you will convey my sincere and heartfelt thanks ; and I beg you to accept the same yourself, sir, for the very kind and flattering expressions which you have been pleased to use in presenting it."



## THE VETERINARIAN, JULY 1, 1853.

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*Ne quid falsi dicere audeat, ne quid veri non audeat.*—CICERO.

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## DEATH OF PROFESSOR SEWELL.

ON Wednesday, the 8th of June, 1853, departed this life William Sewell, Esq., the second occupant of the Professor's chair at the Royal Veterinary College, London. Fifteen years ago, in July, 1838, died the first tenant of the same chair, Professor Coleman. Although the writer of this article, from his intimate acquaintance with both Professors, is nowise unfitted, so far as that acquaintanceship goes, for the task, yet will he abstain in this notice from instituting any comparison between two men who both signalised themselves in the performance of the duties of their station, albeit, perhaps, no two individuals differed more widely in their professional and private characters than did Professor Coleman and Professor Sewell. Those of the veterinary profession who knew them best, will be best able to appreciate the truth of this assertion.

Professor Sewell entered the Veterinary College in the year 1796, as an apprentice to Coleman, the then Professor at the Institution. As a young man, he was eccentric and reserved in his habits, but withal was a most steady, attentive, and exemplary apprentice: qualities which he may be said to have retained to the last days of his existence; though as years advanced, he became more relaxed and free in his associations. During the entire fifty-seven years he was connected with the College, first as assistant to Professor Coleman, subsequently as Sub-Professor, and lastly as Professor, in this steady, and uniform, and unremitting performance of his duties, day after day, and month after month, without the expression or seeming desire, on account of what the world calls "pleasure," or any other pursuit, to anywise shirk or neglect them, perhaps no man in his vocation ever surpassed our late Professor. Without either talents of the first order or profound scholastic attainments, he read Nature's book with a success in the practice of his art which not many can boast of; and to this day do monuments of his diligence in practical research stand firm, and to a remote day will some of them be found still standing.

For many years Professor Sewell, then Demonstrator at the College, had been in the habit of showing a small canal pervading the medulla spinalis, running, as far as he could trace with his naked eye, throughout the length of the marrow.

What this was, what its use or intention could be, he never could devise. He seemed to have no other *conjecture* even on the subject than that, as it contained fluid, such fluid might possibly be the veritable "nervous fluid." Still, he thought very much of it, and held his discovery, which was made in 1803, in high estimation; in proof whereof he presented a paper on the subject to the Royal Society, which was read by Sir Everard Home, and afterwards published in their Transactions. Such had been the state of affairs in regard to this spinal canal for many years;—such was their state, when, lo and behold! disclosures broke forth from that distinguished but now deceased physiologist, Sir Charles Bell, demonstrating that the medulla spinalis was composed of columns, anterior and posterior, (or, in the quadruped, superior and inferior,) whose line of demarcation, indicating their division, was this very *canal*, which, in fact, thus proved to be no canal at all. So close on the verge of one of the greatest discoveries ever made in anatomy and physiology was our late Professor.

In the year 1818, Professor Sewell published to the world his grand discovery of NEUROTOMY. His own and first promulgation of it was made through a paper he presented to the Governors of the Royal Veterinary College. But, subsequently, in the year 1823, a fuller and more finished account was given of it by his old pupil and friend, Mr. William Percivall, in his 'Elementary Lectures on the Veterinary Art,' that year published. On the subject—then a new one, and one in every horseman's mouth and every veterinary surgeon's practice—Mr. Percivall thus forcibly expresses himself:—

"If the withdrawal of pain not to be assuaged by other means,—if the restoration of an incurably lame horse to a state of comparative soundness,—if one, or both, we say, be considerations of importance—the first on the score of humanity, the last on that of interest—then NEUROTOMY will take the lead of modern discoveries in veterinary science. As an emanation from that institution to which the veterinary art, as an useful branch of natural knowledge, owes its rise and progress in this country, it is our duty to regard this operation in a favorable light. When we find, however, that the professed objects of it are no less than those we have here represented, with how much more exultation should we, as veterinarians, hail the disclosure of such a valuable addition to our present practice. Such, we cannot entertain a doubt, are the opinions of its zealous promoter; such, we believe, those of its numerous advocates to have been; and such would they have continued to be, had they

faithfully followed the instructions of him who first taught them this improvement in their art. Who this was we need scarcely mention at so advanced a period from the first promulgation of the discovery. Indeed, did we not imagine that we should be accused of a dereliction of what is due to that gentleman from the profession at large, and of esteem on our own part, we should think it unnecessary to state that to Mr. Sewell, Assistant-Professor to the Veterinary College, belong the merit, and the reward, resulting from its almost universal adoption. The most flattering testimony our discoverer could possibly have received, are the futile attempts that have been made to usurp the authorship of his production; the most solacing, the unequivocal marks of approbation conferred on it by a committee of the Governors of that institution, which is not a little benefited by the very extensive practical application of it."

After a very full exposition and defence of the operation, Mr. Percivall concludes in these remarkable, and we may add truth-turning-out, predictions:—

"In this point of view, its objects being thus circumscribed, we dare prophecy that Neurotomy will be known as long as the veterinary art. It has hitherto stood the test of this capricious age, and weathered out the storm of discordant opinion; it has ranked high in the estimation of its more enthusiastic advocates; it has fallen into disgrace and comparative dread with those who have misapplied it; it has now to rise to a certain point in the scale of veterinary surgery, where it will remain in despite of all future controversy."

In the very last and present numbers of the 'VETERINARIAN' is a dissertation on Neurotomy by the eminent French Professor, Bouley, fully bearing out the verification of this passage.

On the subject of Neurotomy the writer would fain add a word to what has gone before. The operation has, very undeservedly, of late fallen into disrepute, or rather disuse, partly from want of understanding its true value, but principally from that value having been overrated and abused. Notwithstanding, however, all this, it will one day recover again; nay, with sensible practitioners it has recovered, or, perhaps, never has lost, its real utility and worth; nay, the writer fears not to add, *never will lose it*.

In 1835 Professor Sewell introduced a novel operation,—novel at least in veterinary practice,—to his professional brethren, for the cure or relief from pain of exostoses—such as splints, spavins, &c.—his account of which will be found in the eighth volume of the 'VETERINARIAN.' Latterly, he became a great advocate for the practice of inserting *setons*



over such tumours and other diseased parts: the motive he had principally in view, in his warm recommendations of such practice, being no less a one than the abolition of the use of the *firing-iron*, which he decried as inhuman and barbarous, and withal unnecessary. Many years ago also the Professor conceived that he had discovered a fresh cause for roaring in a diseased state of a part he named the *tracheal muscle*, of which he was in the habit of presenting to pupils at the College copies of an engraving he had had made of his discovery. We must not forget to mention here, likewise, his assumed discovery of a "cure for glanders" in the virtues of Sulphate of Copper; though it be one, we apprehend, in which but little reliance is placed by the profession at the present day. In 1819 he was successful in an operation for lithotomy, the case of which will be found recorded by Professor Morton in his 'Essay on Calculous Concretions:;' he also essayed the operation of *lithotrity*.

Mr. Sewell succeeded the late Mr. Youatt as President of the old Veterinary Society, and subsequently was elected President of the Veterinary Association, of which, at the decease of Professor Coleman, he became "Patron." The only work\* he ever published consisted of a 'Report' made to the Governors of the Royal Veterinary College of a visit he undertook, at their desire, in 1818, to the principal *écoles vétérinaires* of the Continent.

With this brief,—might one not say, in some respects, pleasing?—sketch of our departed Professor's professional life, the writer would close this notice of one who was no man's enemy, and who did his best, with his head and his heart, and, he may add, his purse, towards the promotion of a science to which he was solely, singly, and ardently devoted, passing by all attractions and diversions in pursuit of his own favourite handicraft. He was a close and acute observer of a horse's good and bad qualities, defects and deformities, and was sought after as such by those who knew him best among the subscribers to the College. Latterly, however, owing to his great age and to occasional infirmity, he acted in the Institution almost solely as DIRECTOR of the general concerns of the College; there having, of late years, come into office, one by one as it were, Professors under him, young men—men full of ability and zeal for the performance of the several offices allotted to them. Professor Sewell was 72 years of age at his death; Professor Coleman, 71. The latter was interred at St. James's Chapel, St. Pancras; the former, at the Highgate Cemetery.

\* A work was announced, by advertisement, treating on the cure of the 'Tuberculous Disease,' meaning 'Glanders;' but it never appeared.



## SPECIAL MEETING OF COUNCIL.

MAY 25TH, 1853.

*Present:* The President, Messrs. Burley, Field, Henderson, King, Lucas, Mayer, Robinson, Varnell, Wilkinson, Prof. Simonds and Morton, and the Secretary.

W. J. GOODWIN, Esq., the President, in the Chair.

*The President.*—Before the business of the evening commences, allow me to say that I feel exceedingly obliged to you for the high position in which you have been pleased to place me as President of the Royal College of Veterinary Surgeons. I certainly enter upon the office with regret that you have not placed in it a man more competent than myself, and one who better knows the duties of a chairman. For some years past I have been very little amongst you, my health having been anything but good; but as you have been kind enough to place such confidence in me, all I can say is, I will do my best to merit it. There are, as I have said, many in the profession I think you ought to have selected in preference to myself; many who are much older, and many much more competent to fulfil the duties of the Presidential Chair: but as you have placed this mark of confidence in me, you shall have my best energies in doing all I possibly can to promote the interests of the College and the Profession at large.

The minutes of the previous meeting were read and confirmed.

*Mr. King.*—Allow me to thank you for my election to the post of Vice-President, in which you have been kind enough to place me, and to assure you that I will use my utmost endeavours to carry out the duties connected with it, and to attend your meetings, if not always, yet as regularly as I possibly can.

*Mr. Lucas.*—I cannot allow this opportunity to pass over without expressing my thanks for the honour you have done me by electing me as one of your Vice-Presidents. I assure you it was with great surprise that I found you had done me that honour, because I feel that I have not done what I ought to have done for the science of which I am so fond, and for the profession of which I am a member. I can only express to you my sincere thanks, and promise to do better for the future. I shall endeavour to fulfil the duties of the post to which you have elected me to the best of my ability, and to spend as much of my time amongst you as my professional engagements will allow.

Letters were read by the Secretary, from Messrs. Bennett, Nice, and Lepper, acknowledging the compliment paid them, and thanking the Council for their election as Vice-Presidents.

A letter was read from Mr. Cherry, requesting the postponement of his motion relating to the accounts of the College, on the ground of his being unable to attend the meeting.

Mr. Cherry's motion was postponed accordingly.

A communication was read from the Board of Examiners, remonstrating with the Council for the "improper" place (Freemasons' Tavern) at which they were compelled to conduct their examinations.

Exception having been taken to the word "improper," while the inconveniences to which the Board had been subjected were acknowledged, the Secretary was directed to inform the examiners, that if a house was not obtained before their next meeting was held, a more suitable place should be provided for the examinations.

In answer to a question by *Mr. Mayer*,

*The Secretary* stated that the House Committee had not yet secured a residence for the College; but that a house in Bloomsbury Square, apparently eligible for that purpose, had just come into the market, which the Committee would inspect. It was to be let for ten years for £100 a year; the fixtures to be taken at a valuation.

On the motion of *Prof. Simonds*, seconded by *Mr. King*, it was resolved unanimously—

"That the House Committee be requested to take as early steps as possible to secure the house, 43, Bloomsbury Square, or any other which may present itself, for the use of the College, if found suitable for that purpose."

A discussion then took place on the propriety of renewing the application to parliament for the Veterinary Surgeons' Exemption Bill.

*Mr. Mayer* drew attention to a clause in a bill recently obtained by the Pharmaceutical Society, rendering penal the assumption of the title "Pharmaceutical Chemist," by an unqualified person, and urged the expediency of seeking a similar prohibitory enactment with reference to the Veterinary profession.

It was then resolved, on the motion of *Mr. King*, seconded by *Professor Morton*,

"That this Council is of opinion that it is desirable to take steps, by renewing its application to Parliament, for securing privileges to the profession in accordance with the principles of the charter."

*Prof. Morton* then moved the re-appointment of the late Exemption Bill Committee, viz. Messrs. Robinson, Field, Spooner, Henderson, Simonds, A. Cherry, Wilkinson, Mayer, and Turner, with instructions to draw up a bill including a prohibition similar to that obtained by the Pharmaceutical Society.

*Prof. Simonds* seconded the motion, which passed unanimously.

Mr. Gabriel was re-elected (by ballot) to the office of Registrar.

It was resolved, on the motion of *Mr. Gabriel*, seconded by *Mr. Mayer*,

“That Messrs. Simonds, Morton, and Wilkinson be appointed a committee to assist the Registrar in preparing a new edition of the Register.”

*Mr. Field* moved the renewal of the allowance of 100*l.* to the Secretary for the ensuing year.

*Mr. Robinson* seconded the motion.

*The President* said he should put the motion as a matter of course, although he was certain that there would not be a dissentient voice present: for himself, he should merely observe that if any obligation existed in connection with the proposed grant, it was rather on the part of the Council than the Secretary.

The motion was adopted unanimously.

Notices of motion were then given, by *Prof. Morton* respecting the fees paid to the Board of Examiners, with reference to the increase thereof; and by *Prof. Simonds*, respecting a limitation of the time within which pupils who are now in practice shall be entitled to appear before the Board, on the present terms.

Messrs. Robinson, Mayer, and the Secretary were named by the President as the Committee of supervision; and the proceedings then terminated.

WILLIAM ROBINSON.  
THOS. WALTON MAYER.  
E. N. GABRIEL.

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#### DIPLOMAS GRANTED, MIDSUMMER 1853.

THE following gentlemen have this session passed their Examination before the Board of Examiners of the Royal College of Veterinary Surgeons, and have received the diploma of the College:—

*May 11th.*

William Dorofield, *Chorley Wood, Rickmansworth*  
William Duncombe Lines, *St. John's Wood, London*

Edward Jefferson Shelford, *St. Kitt's, West Indies*  
 John Blunsom, *Daventry, Northamptonshire*  
 Paul Anthony, *Bakewell, Derbyshire*  
 Thomas Hickman, *Shrewsbury*  
 Lewis Holl, *New Buckenham, Norfolk*  
 William Hubbick, *Durham*  
 William Farley, *Skipton Craven, Yorkshire*  
 Nicholas Baltazar von Tunzelman, *Russia*

*May 18th.*

George Bretherton, *Liverpool*  
 George Henry Morton, *India*  
 John Sant, *Spondon, Derbyshire*  
 Robert Wilkinson, *Appleton, Lancashire*  
 Sidney James, *Somerset*  
 Joseph Richard Dobson, *Welford, Northamptonshire*  
 George Poyser, *Wirksworth, Derbyshire*  
 William Hall, *East Halton, Lincoln*  
 Thomas Stone Biggs, *Horndon on the Hill, Essex*  
 Samuel Augustus Baker, *Chelmsford, Essex*  
 John Whitmore Garrad, *Colchester*

*May 19th.*

Whitmore Baker, *Dedham Hall, Essex*  
 James Cleveland, *Waugford, Suffolk*  
 Thomas Orme Dudfield, *Gloucester*  
 William Partridge, *Lapford, Devon*  
 Joseph Marston Parker, *Edgbaston, Warwickshire*  
 Bamfield Kettle, *Coryton, Devon*  
 Gabriel Isles Rollings, *Shrewsbury, Shropshire*  
 William Baxter Taylor, *Retford, Nottinghamshire*  
 George Allen Hutton, *Newcastle-on-Tyne*  
 George Roche Kettlewell, *Leamore, co. Waterford*

*May 24th.*

John Ireland Collings, *Exeter, Devon*  
 Daniel Cullimore, *Dublin*  
 John Jones, *Shefford, Shropshire*  
 Edward John Parsons, *Launceston, Cornwall*  
 William Carmichael M'Kenna, *Belfast*  
 John George Dickenson, *London*  
 James Charles Thompson, *Islington*  
 Henry Hussey, *Tilshead, Wilts*  
 William Cooke, *Willesborough, Kent*  
 Thomas Stanley, jun., *Edmonton*  
 James Channon, *Bristol*  
 William Francis Cross, *Battersea, Surrey.*



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ON BURSAUTEE, A DISEASE OF THE HORSES OF INDIA.

By JAS. WESTERN, V.S., Horse Artillery, Madras.

DEAR SIR,—The perusal of Mr. Hodgson's paper on "Bursautee" in India, in the 'VETERINARIAN' for March, affords me an opportunity of going a little further into the subject than he has done, and at the same time giving my humble opinion on the mode of treatment, which he has but slightly touched upon.

The disease, as it exists in this Presidency, has never in my experience, except on my first arrival in the country, now many years ago, *approached* the very virulent form that it appears to do in Bengal; but, with all diffidence, I have my impression that this arises, in that Presidency, from mistaken management at the time of attack.

The regiment I was posted to on reaching India was the 5th Cavalry, to which, previously, a veterinary surgeon had never been attached. Here I found twenty-seven cases, in the month of August, 1828, under the treatment of the farrier major, an ignorant Indo-Briton. Some of these cases were so severe that, as a matter of mercy, I put an end to their sufferings by having them destroyed; the others were cured by the precise treatment I adopt in farcy, the actual cautery locally, (which Mr. Hodgson disapproves of, but which I have never found the slightest difficulty in managing,) and, constitutionally, by tonics, vegetable or mineral, or both combined, accompanied by full feed and plenty of exercise: the last two recommended, most judiciously I conceive, by Mr. Hodgson.

In the upper provinces of Bengal I have never been; but three consecutive years in the city of Calcutta gave me no slight insight into the nature of the disease as it there exists, for I have had sixty or seventy cases to treat daily, and with very few amongst them had I much trouble: these few being patients of former seasons badly treated.

We are most unfortunate in India in having no one to

“superintend the profession,” for at present we have no “principal veterinary surgeon,” as in Her Majesty’s service; consequently, no professional medium of communication with the government exists, and, worse still, no *point d’appui* for professional information, improvement, or the dissemination of the latter. This is a state of things greatly to be deplored; for, if not actually productive of apathy or neglect in some, it must necessarily retard the advancement of the whole by the absence of the focal point from which the recurrent spring of accumulated information should flow.

But I am digressing. To show, however, the serious mistakes into which our governors may be led as the consequence of this faulty system, I copy an official document relative to this disease “Bursautee.”

CIRCULAR, No. 1376.

Adjutant-General’s Office,  
Head Quarters, Simlah; July 7, 1851.

Sir,—I am directed by his Excellency the Commander-in-Chief to annex a copy of a document describing certain treatment for “Bursautee,” which Capt. W. W. Apperley, of the 4th Light Cavalry (Lancers), and assistant in the Stud, has for a series of years adopted with such success as to have completely eradicated, by the mode and practice specified, the disease from the Poosah Depôt, of which he is in charge; and to request you will be good enough to communicate a transcript of the same to all officers commanding mounted corps and troops of horse artillery stationed within the division under your command, for trial, when deemed expedient, and for the more general diffusion of so valuable a recipe.

I have the honour to be, Sir,  
Your most obedient Servant,  
(Signed) H. F. TUCKER, Lieut. Col.,  
Adjutant General of the Army.

*Treatment of Bursautee.*

On the first appearance of a Bursautee sore, stop all grain, and feed on cooling diet; give two or three grains of calomel, made into a small ball, morning and evening till salivation takes place, which in general shows itself about the seventh or eighth day, when a dose of purgative physic should be administered.

In the course of a week or ten days after the physic has set, should the sores not appear healthy, repeat the salivation and the physic. Sometimes, in obstinate cases, a third sali-

vation is necessary; and it is advisable, after all sores are well healed, to slightly touch the mouth again, to guard against the disease breaking out in future.

I have never found any bad effects arise from salivation beyond his being unable to eat dry food for a few days; the healthiness of the gums and breath are soon restored by syringing the mouth occasionally with alum and water. The treatment of the sore is simple, but requires cleanliness and care. On the first appearance of those dark coloured ulcers, with ichorous discharge that cannot be mistaken, they should be dressed with black wash, applied on clean lint every four or five hours, which will assist the operation of the calomel pills. About the third or fourth day, by sponging the sores, small kunkur stones will show themselves, which must be carefully scooped out with the finger, and the sore dressed with green ointment, applied warm and covered with clean lint, which will cause all diseased parts to slough off. The sores must be washed and dressed twice or three times a day to search for kunkur; if one bit remains, the sore will not heal till the cold weather sets in, and then the seed of disease is left behind. If the edges of the sores require eating down, a powder composed of equal parts of sulphate of zinc and blue vitriol, finely powdered, should be rubbed in; but when they begin to look healthy, they may be healed like any other sore by *Ægyptiacum*, tincture of aloes, calamine ointment, &c.; but great care must be taken to secure the horse, or he will gnaw any sore he can get at.

Green ointment is made as follows:—hog's lard, 2 lbs.; common turpentine, 2 lbs.; verdigris, pounded, 1 oz.; spirits of turpentine, 1 oz. Warm the lard and turpentine together, and stir in the verdigris over the fire, and the spirits of turpentine when nearly cool.

N.B. Salivation as described, and black wash applied with slight pressure to the coronets, is the best of all cures for that troublesome disease called "quittor," if resorted to in the early stage of the complaint.

By the distribution of this document to all mounted corps, I believe, of the three Presidencies, there can be little doubt his Excellency the Commander-in-Chief gave Captain Apperley (who, by the way, is a son of "Nimrod,") the credit of having "done the state good service;" but had there been a "Senior Veterinary Surgeon" on the establishment, *he* would at once have pointed out its unscientific nature and absurdity, as could also, I have no doubt, any veterinary surgeon of half-a-dozen years' standing in the

service. You will perceive, also, that no opinion regarding it was requested from, nor reports on the result of its trial by, Army veterinary surgeons; therefore, at this moment, its true value is perfectly unknown to the government.

"Eight days are required to salivate," says *the recipe*; three days for physic and ten more of rest, before this game begins again, make 21 days. Should this require repetition to the fourth time, 84 days are expended, and by that time the wet season is expended also, and the sores, as Mr. Hodgson justly remarks and every one here knows, generally heal of themselves; and who can be certain that salivation four times repeated will not produce results equally serious, as occur in man?

To the "green ointment" few will be inclined to attribute any marvellous properties, for it is composed of a single ounce of verdigris (a mild erodent) added to *four pounds* of other materials, not one of which to an ulcer is more than a stimulant.

"If the edges of the sores require eating down," says *the recipe*, "a powder composed of equal parts of *sulphate of zinc* and *blue vitriol*, finely powdered, should be *rubbed in*;" but, continues *the recipe*, "when they begin to look healthy they may be healed, like any other sore, by *Ægyptiacum*."

Now, according to Morton's 'Veterinary Pharmacopœia,' *Ægyptiacum* is composed of *nine ounces* of verdigris, *six ounces* of alum, and *one and a half pound* of treacle; and this is the healing ointment of the recipe, to assist nature in overcoming the supposed powerful effect of the caustic "green ointment," composed of *one ounce* of verdigris to *four pounds* of lard and turpentine, and which causes all the diseased parts to slough off!!

My humble opinion of the disease is, that *it is essentially a disease of debility*, and therefore should be treated by tonics; and I have yet to learn that salivations four times repeated can thus be considered.

The parts generally affected are, as Mr. Hodgson remarks, the extremities, face, sheath, fetlocks, &c.,—in short, parts furthest removed from the centre of the circulation, where the blood flows the least vigorously, and which are reduced to extreme debility by the relaxing effects of an atmosphere overloaded with moisture for a lengthened period, overthrowing the balance of vital energy which exists in health between absorption and deposit.

The writer of *the recipe* says, "when the sores begin to look healthy they may be treated like other sores," which is quite true. Their primary appearance is precisely described



by him; but at this stage I unhesitatingly affirm that what Mr. Hodgson designates the tuberculous state, and Captain Apperley "kunkur,"\* never exists, but only at a later period, if the case has been unsuccessfully treated or neglected altogether. How, then, are the ulcers to be brought to a healthy state? By a good cleansing with soap lather, and a bandage saturated with cold water, where such can be applied, the exhibition of a brisk purgative, and then the application of the actual cautery, *only just sufficient* to produce a slough and an ulcer of the surgeon's own production,—a healthy surface over which he has immediate control,—the malignant nature of the disease is nipped in the bud, and all that is necessary is cleanliness, with common dressings topically; *good strong exercise* to rouse the circulation in the extremities, and thus restore nature's equilibrium; *good full feeding*, to enable this to be effected; and the exhibition of tonics, vegetable, mineral, or both combined, to promote appetite, assist digestion, afford vigour to muscular fibre, and give Dame Nature a fillip.

A word on Captain Apperley's *Nota Bene*—"Salivation as described above (in the recipe), and black wash applied with slight pressure to the coronets, is the best of all cures for that troublesome disease called 'quittor,' if resorted to in the early stage of the complaint."

My definition of quittor is, a fistulous sinus running into the hoof from the coronet downwards, or from a corn, &c., upwards, sometimes extending over a large portion of the inside of this horny box, combined with caries of bone or cartilage, or both, or even open joint. For this formidable disease, which not unfrequently baffles the best of us, we are modestly told, and the head of the army in India believes, that the "*best cure in the world*" is salivation and black wash, the latter being a drachm of calomel to a pint of lime water!!

I must appeal to Mr. Hodgson's kindness to excuse my advocacy of a practice which he so strongly condemns, viz., the use of the cautery.

I write for information, and not for cavil; and, after all, our principles agree, although the means are opposed.

Yours, faithfully.

BANGALORE; April 20, 1853.

P.S. I ought to add that, as a prudential measure, I was in the habit of giving all my last year's patients a course of

\* Kunkur is gravel—neither this nor tubercle is correct; it is literally *osseous spiculi* found there.

tonics for six weeks or a month previous to the return of the monsoon, or rainy season. The disease was quickly eradicated from the regiment, and for the last dozen years or more I have never seen a case of bursautee *in the service*.

## CASES OF SUPPRESSED STRANGLES, ETC.

By R. HUDSON, V. S., Moorgate, East Retford.

SIR, Seeing in a back number an account of Strangles and its sequelæ, and more recently a complaint of correspondents being rather slack of late, I am induced to send you another of the kind: it, and one or two more, may do for a corner, when better things from abler pens are not at hand. I have often heard and read of suppressed strangles and its consequences, but this is the only case that I have been able to trace through.

A black cart filly, two years old, belonging to Mr. B— of H.\* had an attack of strangles early in 1850; the owner being a “penny-wise” man, did not seek any advice, yet being also an impatient man, he could not let it alone, and before any matter had formed pricked the enlargement under the throat in two or three places with a penknife; it never suppurated. Some time after in April, feeling convinced that “it was taking hold of her,” to use his own words, I was requested to see her; this substance had grown larger, projecting between the jaws something like a good-sized turnip, and felt hard. Blister, ditto; ditto, repeat. The Empt. Hydr. Biniodid. was freely applied, setons passed through and caustics applied to them for some time; however, nothing would induce suppurative action, or lessen it,—instead of being reduced it had grown larger: this state of things continued until the autumn; I told my employer that the only chance left was the knife, and after that perhaps it might grow again,—however, he wished her to be operated upon after he had got his wheat sown. My patient was cast on the 6th of November; I was careful to leave as much sound skin as possible, and not to cut too near the vessels as they wind round the jaw, knowing of nothing else to fear; the tumour being removed, we had bleeding *q. s.* in jets from numerous small orifices, most of which were speedily stayed with the iron; which also answered another purpose, that of searing down any remaining portion of the diseased gland closer to the vessels than I ventured with the knife. Two vessels that did not

\* Buckle, of Hayton, a village three miles in a N.E. direction.

succumb to the iron, were ligatured, a compress of iron placed in the gap, the skin drawn together, she was released. The excised portion weighed 2lb. 4oz. Mild dressings were used for a week or two, when I perceived the tumour forming again on one side—filling up much too fast,—it was seared down two or three times at the time the dressings were applied: when the discharge had somewhat subsided I could plainer see that we had also a rather strong salivary discharge, particularly when eating. By Christmas it was nearly healed, but not completely so for some two or three months after, when by the time the long hairs had grown there was not a trace left behind. She worked regular, and went on right, with the exception of not looking quite so well as her fellows. In February, 1852, I see she had some tonic balls. On the 19th of March I was sent for to her for colic, and informed that she had had an attack two or three weeks previously which passed off without anything, yet the mare did badly; this time, after waiting several hours to see if the pain would go off again, I was summoned with all speed; the usual remedies were used with the exception of bleeding, which she could not bear, without any permanent relief. I told the owner that I feared some old disease, partly from her low condition, probably abscesses in the intestines, and she could not recover; she lingered until the 22d. I opened her, on cutting through the abdominal muscles, at first sight nothing unusual presented, no marks of inflammatory action; on further search we found in the mesentery and partly attached to the intestine a large abscess, which, on being cut open, proved to be, I may say, a dozen or more, in all stages, some hard as cheese and quite dry, others curdy, one, the largest, contained about three pints of pus, which was gradually emptying itself through a small hole into the intestine to which it was attached; it was beautiful to see how, time after time, when they were ready to burst, nature had thrown strong coverings around, and thus secured them from being evacuated into the abdominal cavity,—the whole mess when taken out filled a bucket. True there is nothing new or novel in this case, yet like *Æsop's Fables* it is not without its moral. Your very useful work is not likely at present to be read by many of this class of our employers, by that means to do any good, but may we not be warned not to do too much at times, and, as Professor Spooner was wont to say, whatever we did, be careful not to do harm.

At the close of last year I had a puzzling case. An aged mare, a good sort, of the old post breed, and bloody, belonging to a knacker\* in this place, who had seen many better days. On

\* John Lawman.

the 29th of December, at 2 p.m., I was called to attend her; she began suddenly with colicky pains. I remained with her two or three hours, and never did I witness a poor animal in such excruciating death-like agonies, sometimes on her back, and would remain there a minute or two, at others her feet were up in the rack, in a confined place, momentarily in danger of smashing her skull or fracturing her legs. After giving a draught she was worse than ever, trembled, dropped, and to all appearances was kicking her last dying struggles. I was afraid some of the medicine had gone down the trachea, she rebelled very much every time the horn was put to the mouth, but never once coughed; she sweated, the pulse soft and quick, ears and extremities deadly cold, continually trembling, but at times the fits were really dreadful, she shook all over until her muscles rattled again, and seemed to shake the place; after an hour or two had passed she rallied again, and appeared somewhat quieted; when up she pawed a good deal; her head, generally held, fixed high up, a watchful peculiarly anxious countenance, with which I was most unfavorably impressed; occasionally she turned her head and pointed to the flanks, as far back, which heaved pitifully. Six p.m., give *Al. 3vj*; *Hyd. Chlor. 3j*; *Opii Crud. 3ij*; in a soft ball; we had previously attempted to give another draught, with some oil, but were compelled to desist, it seeming to bring on those frightful agonies again. I was certain that we had internal hæmorrhage going on somewhere—aye, but where—at this stage, I was of opinion it might be the liver, and that the blood was escaping into the abdomen; she had coughed a little for a week or two, though nothing to take her off either food or work; until the day before, she led some bark refuse from a tan yard and refused to start her load, being a mare that could draw a heavy load, though she had been guilty of jibbing at times; her owner used her rather rough, and after two or three stops and rests she managed it home; after that she fetched a few cwts. of hay, and could scarce move it away. Ten p.m. she had ceased getting up and laying down so, stood longer, and breathed quick and laboriously: I attempted to bleed, before a pint had been slowly abstracted the pulse was all but gone, with every other symptom of syncope. Blister sides, insert rowel at the breast: no fæcal matter had been passed except a small quantity removed with the hand previous to an enema.

30th—Six a.m., has been tolerably quiet through the night, ate a little mash, and drank gruel, respiration very quick, ears a little warmer, pulse 106, the softest and easiest compressible pulse I ever felt, mucous membranes completely blanched, the trembling appeared to be wearing off, and she



oft turned her head back just beyond the shoulder; bowels had not acted: give Al. in Bol. ʒvij: blisters just the same as when put on, and I could neither feel nor hear the heart pulsate; the sides were stimulated during the day, and the Sp. Æth. Nit. given in ʒij doses in her water every six or eight hours; at night the bowels responded, and the affection seemed entirely confined to the chest, respiration not quite so quick, pulse about 100 and quite as soft; I had not the slightest hopes from the commencement, but now it is the opinion of many that she would recover.

31st.—Nine a.m., much the same: continue Sp. Æth.

Jan. 1st.—In the morning much the same; in the afternoon it was evident to all that the mare was worse, and sinking, her pulse quicker and almost imperceptible, somewhere near 140, she stood, but more restless, she continued through the night until the next evening. Next morning I was out, and when I returned, she had been skinned and cut up. Nothing wrong in the bowels, one kidney pale and unhealthy; they had found the rill\* out, and left the heart and lungs for me to inspect; on taking out the heart and lungs they found the pericardium immensely distended with coagulated blood, from whence it emanated I had to search: the aorta had given way just as it emerges clear of the heart, it was a small and ragged sort of opening, the heart very large and healthy, the aorta comparatively larger, and its coats somewhat attenuated; the lungs showed marks of old disease sufficient to account for the previous cough.

I had a case of hydrothorax a week or two ago without any previous signs of inflammation. A five-year old cart mare, low in flesh, belonging to Mr. Drury, Bollom Hall. I first saw her May 1. On inquiry, I was informed that a fortnight or so previously they were obliged to desist from working her, she seemed to knock up so, and had cast her foal two months before.

*Symptoms.*—Pulse about 70, rather full; respiration quick and short; hind legs, quite up to the thighs, cold, the skin also; ears warm. I took a small quantity of blood, and gave an alterative ball. On being moved out she went stiff, and there seemed a soreness in her gait.

May 2d.—Breathing somewhat easier, and eating heartily.

3d.—Much as before; blister sides. I told Mr. Drury that, from the pulse and breathing keeping up so, I feared effusion in the chest, and wished to cup her. I could not hear the air pass properly through the lower part of the

\* "Rill," we opine, stands for hemorrhage?

lungs, and fancied I heard a churning or roll of water. The next day a large seton was placed in the breast, swelling had commenced, the back punctured, and tonic diuretics given.

4<sup>th</sup> and 6<sup>th</sup>.—Pulse creeping higher and smaller; respiration quicker. On the 7<sup>th</sup> I drew from the left side close upon three gallons of fluid. Next day breathing somewhat easier. On the next day but one I passed the instrument through the old hole, and about three quarts more ran off. All this time the mare was eating heartily, and the owner did not wish to put her away. On the Saturday night she was stuck, and removed without my knowing. Monday morning I went to examine the diseased parts. The lungs had been thrown to the pigs; I was informed that there was a quantity of water and matter floating in the chest. I did see the ribs as they hung up in pieces, and imagine, from the effused lymph on the pleura costalis, that it must be flocculi of lymph they mistook for pus. Some argue that we cannot have effusion without previous inflammation. In this case nothing of the kind was perceived; the mare was housed, daily at work, and under their eye. At first sight I thought she was much like a few cases I had last year, which, I apprehend, was a sort of influenza in another form; yet I adopted a different treatment, and they quickly recovered in a different manner to what they do in influenza. If I am not trespassing too much, I will give a very short account of them.

On the 13<sup>th</sup> of *May* I was fetched to Gamston, to Mr. Cliffe's, to a black cart mare. On making inquiries, they informed me that she was perceived amiss the night before, went stiff, and did not eat well. Present symptoms, pulse a little over 60 and full; respiration quicker than natural; hind legs swollen up to above the hocks, and particularly painful to the touch. Of course they wanted to know what the complaint was; I gave it the name of inflammatory oedema, with which they seemed perfectly satisfied, and questioned me no further. I bled cautiously, and sent a ball of *Al. ziv*, combined with diuretic. At the same time, the blacksmith at the other end of the village, who keeps but one, had her attacked just the same. The pulse here was fuller and quicker; ears cold and clammy, and right down the face and nose cold. Took more blood from her. Next day both were somewhat better, and quickly recovered.

On the 19<sup>th</sup> Cliffe had another, a chesnut mare, attacked, so they got the smith to bleed, and left word I was to be sure and send some of the same balls. Next morning they came, just after I had gone to a neighbouring fair, and said she was much worse, that her knees were swollen, and her

eyes swelled up. I went in the evening: the swelling of the eyes had disappeared, but there were two large bumps on the front of the knees, which so pained her that she could not be made to move; hind legs also swollen and painful. I gave her some fever medicine, and left a dose or two. Next day the swelling had subsided a good deal, and in two or three days more she was at work. No cough or soreness of throat in any of the three; no alteration in the membranes.

Two more stood in the same stable, and escaped. One of them, a good four-year old cart filly, I had previous to this a long touch at. About the close of last year all his horses had coughs and colds: this filly horse, worse than the rest, was attended by a practitioner in this town.

*January 11th, 1853*, they came for me. I found her breathing with difficulty, in consequence of some obstruction in the throat; she might be heard roaring out some yards off. I looked upon this as a sequela of influenza, inserted a seton between the jaws, another large one at the breast, and blistered the whole length of the neck, up to the parotids.

*12th and 13th*.—Somewhat better; some more alterative balls were given, and Pot. Iodid. in solution, horned down twice a day; the Empl. Iodin. co., c part. æqual. ung. hydrarg. fort. applied daily around the throat. On the *14th* I did not see her; breathing more difficult.

*15th*.—Sent for; much worse. I found my patient in danger momentarily of suffocation. The owner had no opinion of cutting her throat, not having seen it before,—no other chance. I opened the trachea, not without more than the usual difficulty, for there was so much action going on in the muscles of the neck, to enable the poor animal to draw in and expire sufficient air to keep up life, which seemed to move the trachea to and fro, together with the thickening from the blistering, that to think of carefully taking out a portion of two rings was altogether out of the question. I cut a piece out and put in the tube, when she was relieved like magic. The noise ceased at once, to their astonishment. Applied another blister below, continued the ungt. above, and gave Tinct. Iodinii bis in die, and gruel, in ter. dos.

On the *18th* my patient breathed nearly as bad as ever, no matter whether the tube was in or out. On seeing this I was rather dumb-founded, and confoundedly puzzled. I passed my finger in and felt a roundish lump of something on the upper side of the trachea, which seemed attached externally by a very narrow neck, and that neck I was afraid of parting asunder in trying to work the other out; luckily I had my case with forceps: finger and forceps together. At last got

it out, after breaking it down a little; it proved to be a small shred of muscular fibre. In opening the trachea at first, a small portion of muscle must have been lacerated and pushed in with the tube, and in two or three days had grown so as to block up the passage: the cause being found and removed, the effects ceased. The Iodine was continued externally and internally until the middle of February, when she was so much better, and could work either with or without the tube, that they declined sending for any more. She does not make the least noise at work, or when pulling up hill; but when eating there is yet a slight roaring or groaning noise. (I think this speaks well of Iodine.)

*June 21st, 1852,* I was passing through Hayton, three miles from here in a contrary direction, and was requested to see a horse. Four or five stood in the stable; I looked around for the one, and felt the pulse first of one and then another; all were near alike, and I immediately recognised the same symptoms as the Gamston horses. They had been treated, or rather Mr. Peck was advised not to work them, for they did not know the ailment. The same treatment was adopted except to an old horse, which, it was showed, could not recover; however, he was at last bled, and he recovered. I am not aware that any of these had sore throat or cough.

I have a sort of running down case in hand—a cow which, to all appearances, has been a deep milker. She came to Retford last Friday for the “wild beasts;” a bargain was not struck with them, and she was sold to the tender mercies of the same knacker before alluded to. I first saw her late on Saturday night; he was driving her into his yard to kill. On inquiry I was informed that she belonged, just previously, to Mr. J. Bingley, a farmer at Wheatley Grange, and had been attended by an old friend and an old practitioner for some weeks, for the “downfall,” as it is here termed. I prevailed upon him to spare her life until I wrote to the owner, to allow me to remove the udder. A sort of coalition existing between practitioner and knacker, I had something to do to get hold of her. The owner consented, and named his own terms, “no cure no pay,”—a safish game certainly, though the pay was the last thing which crossed my mind. She stayed in this yard without any food until Monday night; I had her taken to my own place, cast immediately, and removed the large schirrous gland, the vessels being secured as they turned up, and the parts sponged; to be certain, a pledget of tow was placed in the wound, the skin drawn together, and she was released. However, we had to



wait her time about rising; being so poor and weak and faint, she never made the least struggle, except just a bit in dividing a nerve. After giving a stimulant and waiting awhile, she rose manfully, and in a few minutes after began to bleed, about the stream it flows from a horse's jugular; I placed a compress with bandages round the body by the hips and between the thighs, and got her housed as quick as possible; she had to be almost dragged in, when housed she fell before we had time to adjust them. Being just on the edge of dark, I would not risk casting and unripping the sutures to find the vessel, and, satisfied it was venous blood, I thought pressure, together with her lying down upon it, might arrest the hæmorrhage. She breathed very quick and was almost pulseless. I gave her some gruel, and left her for dead; next morning, to my surprise, she jumped up quite gay, ate mashies and all we gave, and very greedy after water. The day passed without any bleeding. The morning found part of her supper unconsumed; drank water greedily (allowed a pailful), and began her mash, but ceased eating it, and laid down in a good deal of pain, with her head doubled back to the side. I loosed the bandages, gave M. S.,  $\bar{3}vj$ ; Sod. Hydrochlor.,  $\bar{3}iv$ ; c. Gent. et Zingib. She has not ruminated, and pain is attributed to the digestive organs rather than the wound. Very soon after it was given she gave up plentiful eructations of fetid gas, and seemed relieved; at noon commenced her mash again, but breathed rather quick, and had no cud. I can scarcely hope for a favorable termination. She scoured badly yesterday, and has a cough in addition. The largest half, when removed, weighed 29 lbs., the other half 19 lbs. If it is at all interesting, I will forward you the finale.

I am, Sir, yours most obediently.

MOORGATE, EAST RETFORD;  
June 22, 1853.

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## GENTIAN AND ALOES.

By R. W. DYER, Waterford.

SIR,—Much has been written about the action of Radix Gentian. upon horses. When the first notice appeared in your journal, now some months since, I was induced to make trial of it, as recommended by those advocating its use, especially as I had frequently observed purgation produced by our cordial mass (*vide* Morton's 'Manual'). I made no election of cases.

Twenty-four balls were made as follows: viz., eight balls containing each two drachms of Barbadoes Aloes and Powdered Gentian; eight balls with three drachms each of the former; and eight balls, each containing four drachms of Aloes and Gentian. They were given in the ordinary course of practice. One ball only, which contained the greatest quantity of Aloes, had a decided purgative effect. The majority of the other balls took no effect at all, except that of increasing the appetite; therefore, with these facts staring one in the face, I do not see how we can, with any degree of certainty, state that a compound of Aloes and Gentian, as recommended by these gentlemen, will supersede the use of the common purge. It must be known to all owners and managers of horses, that many are found to be purged by as little as two and a half drachms of Aloes, whilst others require from seven to nine drachms to produce the desired effect. I believe there are various causes in operation to interfere with the action of medicines—atmospheric influence I look to as one, a peculiar state of the system another, and I think we may urge that age is another.

If I am not too prosy, I would relate a coincidence which bears somewhat upon the subject under consideration:—A gentleman brought a three-year-old entire colt from the Curragh, about three years since, into this neighbourhood. The trainer informed me he never could by any means purge him without taking the colt a three-quarter speed gallop after the administration of a strong dose of physic. The colt in question I castrated, previous to which operation I gave him a physic ball, and found it necessary to add to the dose by ordering him a good smart gallop. Many times, since he became a gelding, I have had occasion to employ physic, and I find he is as easily purged as any other horse, with a five and a half drachm ball. I seldom give Aloes, except in combination with Croton Farina, as I find compounds generally are better than simples.

I am, Sir,

Your obedient servant.

WATERFORD; July 5, 1853.

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## PSEUDO-VETERINARY SURGEONS.

*To the Editor of 'The Veterinarian.'*

SIR,—Allow me through the medium of the 'VETERINARIAN' to call the attention of the Council to the fact that young men are going from the Veterinary College, without

having passed the necessary ordeal, and are calling themselves *Members of the Royal College of Veterinary Surgeons*: thus usurping to themselves the title of properly-constituted members of the body corporate to the great injury of the qualified veterinary surgeon. Surely there ought to be some remedy for this? If half educated, and in some instances illiterate men, by virtue of spending some few months or perhaps weeks at the Veterinary College, are at liberty to style themselves M.R.C.V.S., why then the possession of a diploma is perfectly useless, or worse than useless, considering the time, expense, and anxiety in its procuration. Trusting the Council will give this subject the consideration it deserves,

I remain, Sir,

Yours obediently,

M. R. C. V. S.

## ROYAL VETERINARY COLLEGE.

SESSION 1852-53.

AT the Annual Examinations for Honours, held at the close of the past Session, the following gentlemen obtained prizes in the respective departments of the College education:—

### *Anatomy, Physiology, and Pathology of the Horse.*

C. SPOONER, Professor.

<i>Silver Medal</i>	.	.	.	.	Mr. T. Orme Dudfield.
<i>First Certificate of Merit</i>	.	.	.	„	W. D. Lines.
<i>Second</i>	„	„	.	„	G. Poyser.

### *Comparative Anatomy, Physiology, and Pathology of Cattle.*

J. B. SIMONDS, Professor.

<i>Silver Medal</i>	.	.	.	.	Mr. T. Orme Dudfield.
<i>First Certificate of Merit</i>	.	.	.	„	W. D. Lines.
<i>Second</i>	„	„	.	„	John Sant.

### *Chemistry and Materia Medica.*

W. J. T. MORTON, Professor.

<i>First Prize, Certificate and Instruments</i>	.	.	.	.	Mr. T. Orme Dudfield.
<i>Certificates of Merit, equal</i>	.	{	„	G. Poyser.	
		„	„	John Sant.	

To these, the usual honours of the College, another has

this year been added by the generosity of Mr. M'Kenna, Veterinary Surgeon, Belfast. That gentleman placed the sum of £5 in the hands of the Professors, to be given as a "General Proficiency Prize." It has been expended in the purchase of a gold medal, which also has been awarded to Mr. T. Orme Dudfield.

PAX.

# REMARKS ON THE EDITOR'S COMMENTS ON "SMART *v.* MAUNDER."

By "AMICUS EQUI."

DEAR MR. EDITOR,—I was much surprised at your conclusion in the case of "Smart *v.* Maunder," in your June number, when you said that you had much rather place your sick horse under the care of a certain class of "true farriers" than under *certain* members of the Royal Veterinary College. This, I think, is too bad; for there are a great number of farmers who take the 'VETERINARIAN,' who would say to themselves, "Here is the head of the veterinary profession, who says he had rather employ the farrier than the regular practitioner;" and so far lowers the stand of the qualified practitioner to the *level*, if not lower, of the *charlatan* and *empiric*. I know there are numbers of young men who have never served a regular apprenticeship, (except to a "true farrier,") who receive their diplomas after being at the College only *two* sessions instead of *four* (as the bye-law states). How can you wonder that there should be so many members of the Royal Veterinary College unfit to take charge of a sick horse, when there are so many of the class of which I speak? For they go to the College and get their heads filled with anatomy and physiology, and they don't know what, which, with their previous small knowledge of disease, so confounds them that they are in a complete chaos; and the poor suffering brute must pay the cost of their errors by being tortured in all sorts of ways by these jackdaw peacocks.

The remedy rests with the Governors of the Royal Veterinary College; for if they would steadily enforce the bye-laws relating to the apprenticeship clause, you would not have to regret the errors committed by members of the College (such as come before your notice monthly, and I may say daily). I read with regret the number of patients who, I am sure, are killed by their maltreatment; and yet these ignoramus ask the reason why they died!



Hoping I am not intruding, and knowing the interest you take in the profession's advancement, of which you are so distinguished a member, I have no doubt you will use your best endeavours to remedy the evil of which I speak; and—

Believe me, dear Mr. Editor,

Yours sincerely.

\*.\* If "*Amicus Equi*" will but re-peruse our comments on "*Smart v. Maunder*" (which he has not quite fairly stated in his letter), and deliberately weigh in his mind our observations, he will find every one of them directed to the pre-election of veterinary surgeons before men who are ignorant of the science of the art they profess to practise; against which it can only be said that there do, unfortunately, exist M.R.C.V.S., whom "*Amicus*" has styled "*jackdaw peacocks*," who, in our opinion, are less to be trusted with a sick horse than a sensible and experienced farrier.—ED. VET.

## PROLAPSUS ANI CURED BY EXCISION.

By EDW. DYCE, V.S. in general to Constabulary Force, Ireland.

SIR,—"*Vis acquirit eundo.*" Thus quoting, you will, of course, infer that something is meant—such is the fact,—inasmuch as it is, in my conception, that every professional man (Veterinary Surgeons at least), should, when cases of interest occur to them, not allow such to be consigned to the "*tomb of the Capulets*," but transcribe them to that Chronicle of the Veterinary world (your valuable periodical), for the improvement of others: I therefore send you the following:—

A roan Suffolk cart-horse, 6 years' old, the property of Anthony Hawkins, Esq., co. Dublin, was rather constipated, in consequence of which the steward administered a dose of physic. It not operating in due time, injections were had recourse to, but, unfortunately, extensive "*prolapsus ani*" ensued. I was sent for, and, on my arrival, found the rectum protruding to an extent larger than a hat, and the animal straining fearfully, with most extensive lacerations of the mucous membrane. I immediately ordered the hind quarters to be raised by placing a high bed of straw under the hind legs; had the parts well washed and bathed with a solution of Belladonna; tried the usual manipulations for reduction, without success, the straining continuing terrific. The owner wished the animal to be destroyed. I was about to

accede to the request (as the case seemed so hopeless). But it being a valuable horse, I thought it better to suggest that it should be sent to my hospital (a distance of five miles), in the hope that the movement might cause some absorption of the serum effused under the mucous membrane. I therefore administered  $\text{ʒij}$  of Compound Extract of Belladonna as a sedative—put on a truss, made of a new, wet chamois leather—a breast plate and hip truss—smeared the rectum with Belladonna, and sent the horse into town. On his arrival, the straining was not near so violent, and the prolapsus slightly diminished. Ordered constant fomentations with poppy-head tea; hind quarters to be elevated as before, truss adjusted, back raked; ordered food, to consist entirely of gruel, no hay. The animal continued in the same state for 10 days, losing flesh fast; straining very seldom, voiding once or twice “scybalous masses.” Gave  $\text{ʒj}$  of Aloes in solution, and  $\text{ʒij}$  of Belladonna. No effect from the aloes,—no hope for a reduction. I therefore consulted with Mr. Gloag, V. S., 11th Hussars, and we decided that *excision* of the part was the only hope left; which operation was immediately performed in the following manner:—The horse was cast, and the hind legs drawn up to the shoulders; I then made a circular incision as close to the anus as possible, carefully dissected the protruded parts, (saving as much of the mucous membrane as seemed healthy,) and tying the bleeding arteries (which were large and numerous) as I proceeded with the operation. The diseased parts being removed, (weighing above 2lb.,) the horse was allowed to rise, when the parts remaining returned themselves immediately. In one hour afterwards, a large mass of hardened fæces coated with mucus was passed. There was no secondary hæmorrhage. Continued the gruel and slop mash. *No hay*. At the expiration of three weeks he was sent home, improving very much in condition, and he has now for two months been working hard at the farm and continues well: fæces being voided naturally, though for the first month they were voided almost every quarter of an hour in small quantities.

Yours truly.

STEPHEN'S GREEN, DUBLIN;

July 18, 1853.

\* \* This is an excellent case, not only as regards its complete and rapid recovery, but as one for guidance in future practice.—ED. VET.

## Foreign Department.

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### CONSIDERATIONS ON CRIB-BITING, WITH ERUCTATION.

By M. E. FISCHER, Veterinarian at Cessingen-lez-Luxembourg.

ALTHOUGH the anormal action with horses known under the appellation of *crib-biting* is so frequently observed, it is still one far from being sufficiently understood. Many of our best Veterinary authors have furnished dissertations on the subject, but these present great variety of opinion touching the causes, seat, nature, and consequences of crib-biting. Whilst one contends that, in the act, the horse swallows atmospheric air, another pretends that the animal ejects air, which act is accompanied with a particular noise, created by gas generated in the stomach. Some say that the habit is injurious to horses who practise it, and that it frequently renders them valueless; while others maintain that it nowise materially hurts them. The court (of appeal) has pronounced in favour of its innocuousness.

By this we are led to distinguish crib-biting into that which is acquired by habit, *habitual*; and that which is properly so called, and which is *spontaneous*.

The opinion which regards crib-biting, as discharging air from the stomach, similar to belching in ourselves, is evidently an erroneous one, since it implies that the act is one of absolute necessity. Now, it is well known that by various means we have it in our power, in some horses, to prevent crib-biting for a longer or shorter time; but in doing this we never hear of any evil consequences arising from its suppression. Indeed, if such were true, horses ought to blow themselves out with the gas, which, instead of eructating, they are now compelled to retain. And moreover, did crib-biting consist in eructation, gas might make its escape through the nose, and then the animal would have no occasion for that violent movement which characterises crib-biting.

To those who pretend that crib-biting consists in swallowing atmospheric air, in order to aid the digestion of horses infested with the vice, I reply, without entering into any physiological considerations, that if by any means the crib-biting be put a stop to, for several months together, the horse digests quite as well without as with the vice: of this I have often had occasion to convince myself.

The explication given by M. the Professor Gurlt, of crib-

biting with eructation,\* supplies the reason of the difference of opinion we have adverted to, and is quite conformable to what one daily observes. M. Gurlt asserts that the crib-biter swallows air, which he the same instant rejects; but that, nevertheless, in particular cases, a portion of the air having descended into the œsophagus does not reascend into the pharynx, but penetrates into the stomach, into which it is forced by the contraction of the wall of the œsophagus. M. Straut, who has written an admirable memoir† on crib-biting in horses, admits of the view of the matter taken by Gurlt, which he explains in this way:—The animal, when he incurvates his head upon his breast, does so to gain a *point d'appui*, in order to force a certain quantity of atmospheric air into the pharynx, and thus overcome, in this act, the natural impediments offered by the *velum palati* and *fauces*: the larynx is elevated, while coincident muscular contraction draws up the fauces to receive the swallowed air. At this moment the horse relaxes in his effort, (crib-biters in the air effect the movement in slight elevation of the head,) and then the air swallowed flows back, and escapes with the characteristic sound. With old crib-biters we may convince ourselves by auscultation, that the sound attendant on the act is in truth produced at the moment of the evacuation of the air; and with horses in whom the air reaches the stomach, a second faint supplementary sound may be heard along the œsophagus, coming from the air entering the stomachal cavity. This last sound has some analogy to the borborygmi (rumblings) of the bowels.

In this manner we may explain very readily how it happens that some crib-biters blow their bellies out very much in the act, while in others nothing of the kind happens; so that in some horses the vice really proves prejudicial, while others seem hardly at all decreased in real worth by it.

Hurtrel d'Arboreal, and numerous Veterinary authors with him, have sought the cause of crib-biting in the digestive organs: but, in perusing this author's article on the subject, it is easy to perceive that he has collected exceptions to establish a general rule, and has mistaken the effect for the cause. Indeed, the medical opinions of this writer savour too much of the gastro-intestinal organs being the seat of diseases obscure in their nature.

I know many crib-biting horses, but I am not acquainted with one instance in which the vice has proved decidedly (*sensiblement*) prejudicial, providing, as is done in my part of the

\* Nachtrage zur Pathologischen Anatomie, Von Gurlt, p. 69.

† Repertorium der Thierkeilkunde, herausgegeben von Hering; 1850, p. 190.



country, measures be taken to hinder horses having it, biting the crib any great deal. Many farmers indeed, possessing such horses, regard them, though perhaps through prejudice, as their most hardy workers. I often find a single crib-biter in a farmer's stable, where perhaps he has been for many years among the other horses, where he has acquired this evil habit, without the farmer being at all able to divine the cause. And I have possessed a harness colt, who, no sooner was separated from his dam to be tied up in a stall, has commenced crib-biting without ever having before shown the slightest tendency that way. He is at present 6 or 7 years of age, and still bites the crib. If crib-biting, as some pretend, consists in swallowing air, to serve the purposes of digestion, certainly this colt ought to have ill-digested his food during the time he was kept from practising it; and if there results from the act the generating of gas in the stomach, the animal from this cause would have found himself disordered during his abstinence from crib-biting.

In general, crib-biting ought rather to be regarded as a vicious habit than as a disease: as the latter I have never been able to regard it. Horses who are old crib-biters, present the inconvenience of being slow feeders; they require a good deal to satisfy them; and those who generate air in their stomachs are very subject to attacks of meteorization. To obviate such inconveniences the following means have been recommended,—either the ordinary crib-biting strap, or an iron T, whose branches so embrace the throttle as to prevent the horse arching his neck after the peculiar manner in which he prepares for the act, and accomplishes it. — *Réc. de Méd. Vét.*, Jan. 1853.

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## CURATIVE TREATMENT OF CANKER.

(*Supplementary to the article on the same subject in a former No.*)

By M. FISCHER.

I may premise here, that, *cæteris paribus*, the obstinacy of canker to yield to various agents is not always uniform. While some cases of benign aspect for a length of time prove untoward, others have unexpectedly given way to the treatment adopted. I have remarked that, in general, the disease is easier if subdued in the hind than in the fore feet.

The method of cure I have recommended, after Eichbaum, as well as from the results I have myself obtained, admits of

the advantage, in the same horse, of dressing all four feet at once, should they require it. I have convinced myself that slacked lime is not at all equal to that which is unslacked. The latter becomes with water more unctuous; it adheres better, and causes thicker crusts or sloughs, which more readily become detached. I procure lime as pure as I can, and make it into a paste with water, immediately before application, in order that it may, in that form, reach the sinuses of the foot, after having sprinkled over the cankerous surfaces pure chloride of lime, or else that mixed with pulverised tan, according to circumstances. In cases where the calcined calcareous stone refuses readily to absorb the water, and when it does not easily unslack (as is almost always the case with lime made from *liassic* earths), I obviate, in some measure, this inconvenience by making use of boiling water.

First of all, I confine the paste upon the foot with a piece of linen, before I enclose the foot in a boot, otherwise the latter would speedily become destroyed by the caustic. At every fresh dressing, *i. e.*, daily, the linen is calcined, as it were, by the lime, so that each time fresh linen is called for. Chance led me to make use of pieces of sack, such as coffee is sent out in. This, made of a material unknown in our country, resists the action of the lime, and answers completely. I may as well add, that such chloride of lime as is lumpy or grumous ought to be rejected, since, from its having been long kept, it will not form an adherent paste. In removing the sloughs or incrustations, we must take care not to make the parts bleed. Setons are found useful in the removal of canker.—*Recueil de Méd. Vét.*, Jan. 1853.

\*.\* The French Editor (M. Bouley,) has subscribed this article with a recommendation to his professional brethren to make trial of it: we have done so, and found it successful, and therefore can conscientiously advise our readers to do the same.—ED. VET.

## Home Department.

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### SECOND REPORT ON THE PREVENTION

OF

### PLEURO-PNEUMONIA IN CATTLE BY INOCULATION.

By PROFESSOR SIMONDS, Veterinary Inspector to the Royal  
Agricultural Society.

IN the former Report which we had the honour of submitting to the Council of the Royal Agricultural Society on the subject of the inoculation of cattle as a preventive of Pleuro-pneumonia, we drew attention to the proceedings which had been adopted on the Continent, and more particularly in Belgium, towards establishing this method of imparting security against that insidious and fatal disease. From the great interest which this subject has excited both on the Continent and in England, it becomes necessary to repeat in this place that the plan of inoculation originated with a Dr. Willems, of Hasselt, who was induced to practise it after giving trial to various other measures; all of which had failed to arrest the progress of Pleuro-pneumonia. Dr. Willems' experiments date from December, 1850, but they were chiefly carried out during the years 1851 and 1852, and were at first made on animals belonging to his father—a distiller and large proprietor of "fattening cattle."

With the introduction of inoculation the attacks of the disease rapidly diminished, and, it being considered that this beneficial change depended entirely on the employment of inoculation, Dr. Willems lost no time in calling the attention of the Belgian Government to the subject. The immediate effect of this step was, as stated in our former Report, the appointment of a Government Commission, consisting of both scientific and practical individuals, to investigate the merits of this new preventive system. This procedure on the part of the Belgian Government led, as was to be expected, to similar Commissions being instituted by other Governments, thereby giving a world-wide fame to the subject of cattle inoculation.

Perhaps, of late years, few things connected with the diseases of cattle have excited so lively an interest or led to more numerous experiments than this supposed preventive of Pleuro-pneumonia. Under such circumstances it was not unreasonable to hope that, ere this, the question of the propriety of inoculation would have been both *finally* and *satis-*

*factorily* set at rest. It appears, however, that such is far from being the case, and the subject seems destined, for a time at least, to hold its place among the *questiones vexatæ*. Men of equally great repute in the science of medicine are to be found ranked on either side, as its advocates or its opponents.

Reserving for the present the opinions which have been formed from our own experience in inoculation, we shall proceed to give the conclusions of other investigators. This becomes the more necessary, as in many particulars a want of agreement would seem to exist *even in the results themselves* of the operation, and hence probably the cause of the differences of opinion to which we have alluded.

First, in order of time, come two Reports from the Dutch Commission, dated respectively September 21st and December 28th, 1852.\* The details of the experiments are very accurately given, and occupy the greater part of both reports. It is, however, not necessary to quote them here, as they differ not essentially from those to be afterwards mentioned. "The result of the trial," says the Committee, "may be thus summed up:—

"1st. Although inoculation in pulmonary disease is not, in every respect a harmless operation, and may produce considerable ulceration, and even death, the symptoms, as a rule, are confined to the part where it is applied.

"2d. To obviate, as much as possible, unfavorable consequences, it is necessary to use some precaution, as well in regard to the choice of matter as to the time of applying it. The season of the year—the state of the weather—the healthy condition of the animal—may exercise considerable influence. The autumn appears, for several reasons, to be the most fitting time.

"3d. Where more violent action and dangerous symptoms in remoter organs likewise appear, they may also be connected, excepting in exterior circumstances, with the individual condition of the animal, for which reason they cannot always be avoided.

"4th. When the violent action occurs and extends to the more vital parts, affecting the whole system, its progress can as little be prevented and checked as the disease in general can be cured.

"5th. In those cases where the progress has been serious and even terminated in death, morbid degeneration has never been observed in the pectoral cavity or in the lungs, but as yet only in the cavity of the belly.

"6th. Inoculation, when its effects appear as a local affection, has never exercised any unfavorable influence on the general state of health or on the milk. In those cases only where, on account of previous violent action, fretting ulcerations appear, the animals continue to pine for a while.

"7th. On the procreative impulse it does not exercise any decided influence, being proportionally more prevalent with inoculated than with

\* See Papers respecting Pleuro-pneumonia in Cattle, presented to the House of Lords by command of Her Majesty, April 4, 1853.



not-inoculated animals. It is, however, remarkable that it has not occurred with No. 25,\* although the regular period is already past.

"8th. The unproductive effects on Nos. 5 and 12, consequent probably on abortion, cannot, as long as these two cases remain isolated, be ascribed to inoculation; more particularly as, with Nos. 19, 21, and 23, where considerable action prevailed, it did not occur.

"9th. Although it cannot with perfect certainty be determined whether premature calving of the cow (No. 10) near her time of calving, and the symptoms observed on that cow and subsequently on the calf, as well as the premature calving of No. 14, are attributable to the previous inoculation, it would not be advisable in advanced stages of bearing to apply it.

"10th. Although abortion on the first appearance of the disease frequently occurs, it is worthy of remark that it never occurred with animals where action was so severe as to occasion death (as in case No. 9); so that, if inoculation exercises influence on pregnancy, it probably only does so in the last stage.

"11th. The supposition noticed in the first report, that the commencement of the disease after inoculation is only to be ascribed to its having been in existence at the time of inoculation (of which nevertheless not one single appearance has been observed), obtains greater probability from the present experiments.

"12th. The assertion that animals having once had the pulmonary disease and been cured, never, or at least rarely, take the disease for the second time, and that inoculation in such cases remains inoperative, is confirmed in case No. 16, on whom inoculation twice repeated produced no effect. And finally:—

"13th. Although the present trials prove in a remarkable degree that inoculation possesses the power, at least temporarily, to prevent infection, it remains uncertain how far disposition for the disease is completely, or only for a longer period, destroyed.

"From the nature of the subject a considerable time must elapse before any positive conclusion can be acquired on this point.

"The Committee has thus endeavoured to make your Excellency† acquainted, as circumstantially and accurately as possible, with the result of its investigation.

"It has entered into extensive detail in order as far as possible to state every particular relative to inoculation and its consequences, with a view thereby, and by a faithful detail of the progress of its inquiries, to remove from the minds of our cattle proprietors the unfavorable impression produced by the rash, or at all events premature, judgment of veterinary practitioners in a neighbouring country, which has been noticed in several newspapers; neither does the Committee, from the result of acquired experience, hesitate to recommend inoculation, under prudent treatment, in every case where pulmonary disease has broken out in a herd of cattle, or in the neighbourhood.

(Signed)

"P. H. J. WELLENBERGH.

I. JENNES.

R. J. C. RYNDERS.

F. C. HEKMEYER.

G. WIT.

J. R. E. VAN LAER.

"UTRECHT; Dec. 28, 1852."

\* This and all subsequent numbers named in the extract have reference to animals alluded to in other parts of the Report of the Commission where the details of each case are given.

† The Report is addressed to his Excellency the Minister of the Home Department.

It will be sufficient for the present to make but one or two comments on these conclusions: and firstly, on "the supposition" contained in the 11th section, to the effect that animals dying of Pleuro-pneumonia, subsequent to inoculation, have at the time of the operation the disease incubated in their systems. This is a point of some importance in the present inquiry, and particularly with regard to protection; for while it admits that Pleuro-pneumonia is a disease which has, like many others, its incubative stage, still it fixes no limit to such stage. We might consequently infer that, in the opinion of the Committee, an attack of the malady, subsequent to inoculation, howsoever remote it may be, would not depend on an exposure to the ordinary causes producing it, but on its being incubated at that time. Indirectly, the committee here assert that inoculation is protective to the animal during the remaining period of its life. That such is not their opinion is seen, however, by the 13th conclusion.

It is unnecessary here to discuss the question of the differences in the period of incubation of different diseases. For the most part they are well understood, and with very few exceptions clearly ascertained; rarely does the time exceed two or three weeks. It is evident, therefore, that the Committee merely desire to give it as their opinion, that Pleuro-pneumonia, if happening within a *very short time* of inoculation, was lying dormant in the system of the animal when the operation was performed. In this view of the subject we can coincide; but this leaves such cases as are named in our first report,\* of animals attacked *two months*, and *three months and a half*, after inoculation, to be accounted for only on the principle that they were *unprotected* by inoculation, and therefore it is an argument against the practice. This question will receive further elucidation from the facts which will be given in the after part of the present report, and we will only add that no person acquainted with Pleuro-pneumonia would be found bold enough to affirm that the disease is incubated, or, in other words, is slowly advancing to maturity, during so long a time as two or three months, and this without the animal exhibiting any indications of its existence.

The only other point in the report of the Dutch Commissioners necessary to allude to here is found in the concluding sentence, where the Committee observe that they do not "hesitate to recommend inoculation under prudent treatment in every case where pulmonary disease has broken out in a herd of cattle or in the neighbourhood." Would that our own experience enabled us to say the same: for the present,

\* See Journal, vol. xiii, p. 382.

however, we must leave the opinions and the recommendations of the Committee, and pass on to show what conclusions have been come to by other continental investigators.

In our first Report it will be seen that allusion is made to certain causes which induced the Government of Prussia to delay its official inquiry into the subject. Subsequently, however, it commissioned Dr. S. Ulrich, Veterinary Professor of the Royal Academy at Möglin, to proceed to Hasselt, and to report the result of his investigations. We are unable to give the full particulars of the experiments had recourse to by M. Ulrich on his return, or the conclusions to which he arrived, but that he reported upon the whole in favour of inoculation may be gathered from the following letter sent to the Earl of Clarendon by Mr. J. R. Curtis' Her Majesty's Consul at Cologne.\*

"BRITISH CONSULATE, COLOGNE; *March 11, 1853.*

"MY LORD,—Since I had the honour last year of bringing under the attention of Her Majesty's Government the great importance of the recent discovery made by Dr. Willems, of inoculating cattle as a preservative against the Pleuro-pneumonia, or commonly known in England under the name of the "new disease," by the virulence of which thousands of cattle are carried off annually, and against which all medical aid has up to this period proved insufficient to check its infectious ravages, I have not lost sight of this important question, and the various improvements which longer experience has introduced into this new system; and I consider that I should be failing in my duty if I did not call your Lordship's attention to a report which has been forwarded to me upon this subject by Dr. Sticker, Royal Veterinary Surgeon for the district of Cologne, a translation of which I now beg leave most respectfully to enclose.

"As a Committee has been appointed in London for the investigation of this most important question, by the Royal Veterinary College, I think your lordship will find that the valuable information afforded by Dr. Sticker's report is calculated to throw additional light upon the subject which will be brought under the consideration of the said Committee, and may consequently be of great assistance in solving the question at issue, and thus render considerable benefit to the agricultural interest of Great Britain.

"I further beg leave to inform your lordship that Dr. Sticker has at the same time invented a new instrument for effecting the inoculations according to his system, and has expressed a desire that a specimen of the same should respectfully be presented to His Royal Highness Prince Albert, who takes so lively an interest in the solution of the important question to which Dr. Sticker has devoted his constant attention; and I beg leave to forward the same to your lordship under a separate cover, respectfully leaving it for your lordship to decide whether with propriety it can be presented to His Royal Highness.

"In conclusion, I may be allowed to state that this question has attracted the serious attention of the Prussian Government, these pro-

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\* Papers respecting Pleuro-pneumonia in Cattle, presented to the House of Lords.

vinces having unfortunately been most severely visited by the disease ; and, convinced of the efficacy of the system, the government do all in their power to promote the inoculation as much as possible, and at present, when the disease breaks out amongst the cattle in a certain locality, the authorities of that district immediately cause all the cattle to be inoculated, as the only means of preventing the infection from spreading.

“ I have, &c.

(Signed)

“ J. R. CURTIS.”

In addition to this communication to the Government, we are enabled to give an extract from a letter which we have just received from Mr. Curtis, dated Cologne, June 1, 1853, and which confirms the conclusions we had previously arrived at.

“ I have really seen,” writes Mr. Curtis, “ such extraordinary effects follow inoculation, and have also seen scientific men of the highest standing who *opposed the system* for a long time become *complete converts* to inoculation, that I can no longer doubt, and consequently I am an advocate of the system.

“ The Prussian Government, who, as you truly remark in your Report,\* ordered the operations of M. de Saive to be discontinued last year, are also *amongst the converts*, and inoculation is encouraged by every means by the government.”

Besides the inquiries of Dr. Ulrich in Belgium, it appears from some reports with which we are just favoured by Mr. Hebel, the Consul-General of Prussia, that Dr. Lüdersdorff of Berlin has also investigated the subject of cattle inoculation in the Cologne district. This step was rendered the more necessary from the ill success of Dr. De Saive's operations last year. Dr Lüdersdorff concludes his Report by stating that, “ although his observations are perhaps not fully conclusive, still they certainly speak more in favour of than against inoculation. They show that *the danger of this remedy* is in no proportion to the losses produced by the *natural* disease, and that consequently inoculation should be more generally adopted.” A Committee of the Agricultural Society of Ober-Bamein district also reported that “ Dr. Willem's plan of operating can be so improved as to avoid the ill consequences at present attending it.”

Prussia, we thus see, has been induced to follow in the wake of Holland, by adopting inoculation as a means to save her cattle from the ravages of Pleuro-pneumonia.

As yet we are without direct or official information from France, and, therefore, we must not anticipate the opinions of her Commissioners being in favour or otherwise of the

\* Mr. Curtis here refers to our former report. See Journal, vol. xiii, p. 376.



practice by any speculations of our own. It is probable that their Report may come to hand in time for the particulars to be inserted in the present paper; and if so, they will be given, so as to render the subject as complete as it can be under existing circumstances. Failing this information for the present, we come next to the proceedings of Belgium herself.

The Commissioners here have spared no pains to arrive at the true value of the practice of inoculation, and their Report, which extends over 176 pages 8vo, is full of most interesting and valuable details. In the majority of cases their experience fully coincides with our own, a fact to which we allude, in order to show the impartiality of their proceedings, and which we regret to see has been called in question. It is unnecessary to select cases from their Report, or to follow the Commissioners through their scientific reasonings on the subject; and, therefore, we shall in this place content ourselves by giving the conclusions to which they have arrived.

"From the preceding facts," says the Report, "the Commission concludes:—

"That inoculation with the liquid extracted from a hepatized lung, the result of exudative Pleuro-pneumonia, is not a certain preservative against the malady.

"That the phenomena succeeding inoculation may be produced several times in the same animal, which may or may not have been attacked with exudative Pleuro-pneumonia.

"That the two affections may exist together in the same individual, and that considerable derangements are manifested in the inoculated part, whilst the morbid action of the lungs progresses towards a fatal termination.

"As to the ascertaining whether inoculation really possesses a preservative power, and if so, in what proportion and for what length of time it imparts immunity to the animals subjected to it, these are questions which can only be solved by further experience.

"Read and approved at a meeting of the Commission. Present—

"M. VERHEZEN, President.		
BELLEFROID,	DEUTERLUIGNE,	} Members.
GLUGE,	SAUVEUR,	
THEIS,	THIERNESSE,	
FALLOT,		
MARINUS,		} Delegates from the Royal Academy of Medicine.

"BRUSSELS, Feb. 6, 1853."

Having now shown that the present position of the question of inoculation justifies our remark of *its usefulness* being as yet a disputed point, we shall proceed to a detail of our own experiments, and of the deductions drawn therefrom. Before doing this, however, we must observe that there is a statement in the Belgian Report, given on the authority of M. Willem's father, which deeply affects our credit, and which

consequently requires a reply from us. Reserving, however, for the present any further allusion to this matter, we pass to the subject immediately requiring attention.

In the first place, we shall give a brief history of the progress and rate of mortality of Pleuro-pneumonia in the herd of cattle among which our experiments have been instituted; a step rendered the more necessary in consequence of the effects which have followed inoculation. Any means which are correctly used to effect a proper solution of the question of inoculation cannot fail to be of interest to the agriculturists and cattle proprietors of this country, and the more so because here, as elsewhere, no efficient method of cure of Pleuro-pneumonia has been discovered. Hence we may remark, that the Royal Agricultural Society is under peculiar obligations to those public-spirited individuals who have shown their willingness to give up their cattle for legitimate experiments. It is deeply to be regretted that, while all persons are so ready to reap the benefit, so few can be found to incur the risk of a scientific investigation. It is right, therefore, to call attention to the fact named by Mr. Pusey, in a note appended to the former Report, "that it was with the kind assistance of Mr. E. Denison, M.P., and through the liberality of Mr. Paget, of Ruddington Grange, near Nottingham, that the Society was enabled to make arrangements for testing the efficacy of inoculation."

On our first visit to Ruddington, Mr. Paget kindly placed at our disposal any number of animals we might select for the experiment of inoculation; and this notwithstanding he was in full possession of our opinion as to the serious ill consequences which might attend the operation, as well as our doubts of its ultimately proving of any value as a prophylactic. From the history given, it appears that Pleuro-pneumonia, which had prevailed more or less in the neighbourhood of Nottingham since 1843, first showed itself in Mr. Paget's herd in August, 1849. The attack was very virulent, and between this time and Christmas of the following year it carried off no less than seventy animals. In 1851 thirty fell a sacrifice to the disease, and from January, 1852, to the end of November, when the experiments were commenced, thirty-two more animals were destroyed by it. We have thus a total loss of 132 animals from August, 1849, to November, 1852, inclusive; a period of little more than  $3\frac{1}{4}$  years. From the changing state of the herd, the ratio of deaths to the number kept cannot now be ascertained, but it will be seen that the losses may be described as being ruinous in amount.

Mr. Paget milks upon the average sixty cows for the supply

of the town of Nottingham; besides which, he buys in from time to time a number of animals to fatten, and also to supply the place of those which have been sacrificed to this and other diseases, so that he has from 90 to 100 head of cattle usually on his premises. It is necessary to state that the amount of loss is partly guarded against by feeding the animals liberally, and by having them killed as soon as they give the slightest indication of being affected with Pleuro-pneumonia,—experience having shown the inutility of medical treatment.

The rate of progress of the disease has not been uniform, as it appears that several weeks have passed without any cases, and then somewhat unexpectedly a fresh outbreak has taken place. These repeated attacks have not been traced to any satisfactory cause, but the more recent losses would seem to be connected with the sudden appearance of the affection known as Epizootic Eczema among the cows, in August, 1852. This disease produced a great fall in the condition of the animals, thereby rendering them more susceptible to the general causes of Pleuro-pneumonia. For some time prior to this date not more than one milking-cow in a month was affected; but since then, occasionally, as many as two in a week have succumbed to the disease. It is a somewhat singular circumstance, that for three months after the appearance of Pleuro-pneumonia in the summer of 1849, the disease was entirely confined to the cows inhabiting one particular shed, although a free communication exists between this shed and the others where the cattle are placed. It was thought that this circumstance depended somewhat on imperfect ventilation, and steps were taken to remedy this supposed defect; still, however, this shed has *throughout* yielded by far the larger number of cases. Very little preference has been shown by the disease for either the fatting or milking cows, but the more recently purchased animals have generally suffered the most.

It is a fact, worthy of a passing remark, that a bull which had been two years on the premises, was at the time of our visit in perfect health; and also that another bull, which had free access to the cows in the fatal years of 1849 and 1850, completely resisted the influence of the contagion. Both these animals were in turn made to live in a shed which adjoins the one previously described as being remarkably unhealthy; besides which, cow after cow was attacked while being tied up in a stall immediately contiguous to that occupied alternately by the bulls. We may further observe that the causes of the fatality are by no means apparent; the

animals are liberally fed, well attended to, and not over crowded into confined or ill-ventilated sheds. They are of the "short horn" breed, and mostly of middle age. Various measures have from time to time been adopted to arrest the progress of the disease, but the effects have not been marked with any decided benefit.

We here close the history of the disease in Mr. Paget's establishment prior to the introduction of inoculation, the particulars of which we shall now proceed to describe.

On the 27th of November sixteen animals were selected for the operation; of these, twelve were inoculated on the under surface of the tail, near to its extremity, by *superficial* punctures, and four by *deep* punctures through the skin, after the manner of Dr. Willems. It is necessary, however, to add that these deep punctures were *cleanly made with a sharp lancet*, and not with a *bad-cutting "double-edged" scalpel*, such as we saw *forcibly* thrust through the skin, and twisted about in the wound by Dr. Willems. This fact led to our remarking, in the former Report, that "surgical and scientific principles did not rule in these operations" on the Continent; and it is essential to allude to the circumstance again, because of the results which attended on these our first experiments.

The material employed for the inoculation was the *serous fluid* pressed from a diseased lung, and of this two or three drops were placed in each wound. Care was taken to have this fluid as fresh as possible, and also that it should not come from a lung "over diseased;" for which purpose we caused an animal to be killed in the early stage of Pleuro-pneumonia, so that no untoward result might arise from a neglect of these precautions. We were assisted in these operations by Mr. H. Pyatt, veterinary surgeon, Nottingham, who is consulted by Mr. Paget in all cases requiring medical care, and who took a deep interest in these experiments. Mr. Pyatt also kindly undertook to watch the progress of events, and report to us as occasion seemed to require.

It was decided to leave *fourteen* of the inoculated cows to mingle indiscriminately with the rest of the herd, but to remove *two* of them to an infirmary shed, into which diseased animals, as they were attacked, were taken, so as to expose them to the more direct influence of the contagion. This experiment was carried out for several weeks, when it was discontinued, the animals during the time remaining unaffected.

With *two* exceptions, the inoculation *failed to produce the slightest effect*; and in these two animals it was not until the *fifteenth* day of the operation that the wounds inflamed. In consequence of this failure we determined to *re-inoculate* the



cows, which was accordingly done on December 13th. *Twelve* only out of the fourteen were however operated upon, *two* being left in order to ascertain if the previous inoculation would still take; Dr. Willems, in his Memoir, having stated that *a month* sometimes elapses before any local effects are observed. No such phenomenon occurred in either of the cases, but, nevertheless, as one of these cows, after inoculation, was a little out of health for about a week, and both Mr. Paget and Mr. Pyatt thought this might possibly depend on the inoculation, it was determined not to repeat the operation upon her. This cow, up to the present time, June 1st, 1853, has continued well. This cannot but be considered as a decided instance of a *non-inoculated* animal resisting for months, equally with those which were inoculated, the contagious influence of Pleuro-pneumonia; for the continental authorities affirm, and in this we fully agree, that no constitutional effects can result from inoculation unless local morbid action is first produced. With regard to the other cow, she was subsequently *re-inoculated*, and lost her tail from the gangrenous inflammation which attended the operation.

On one of the two *original* cases successfully inoculated, as it is ordinarily described, the inflammation was succeeded by ulceration of the parts adjacent to the puncture. It was feared that the animal's tail would be lost; such however did not prove to be the case. Further particulars, both with reference to this last-named cow, and also the *re-inoculations*, will best be learned by the following note received from Mr. Pyatt on December 17th:—

“On Monday last, December 13, I went to Ruddington, and, in accordance with your directions, I *re-inoculated* twelve of the cows. Not the slightest effect was produced by the former operation, except in two cases. In one, No. 19, I found the tail swollen and very sore, with a scab about the size of a shilling covering the place of inoculation. I have seen this cow daily since Monday, and, although she appears to be perfectly well in health, the tail is now much more inflamed, and the wound looking so badly, that I fear in a few days the tail will slough. The *re-inoculations* were made from a *highly-diseased lung*, and it seems to me they will all take, as the tails are now a little swollen and very sore when pressed.

(Signed)

“HENRY PYATT.”

It will be seen from this letter that the fluid used for the *re-inoculations* was the product of a more advanced stage of Pleuro pneumonia: to this and also to the deep punctures made by Mr. Pyatt, the marked inflammation that speedily followed, or the success of the inoculation as it is designated, is to be attributed. On the same day that these twelve animals were *re-inoculated* two others were operated on, and

on December 19th, two more. These latter two were inoculated with *sero-purulent* fluid obtained from the inoculated places of other cows, being what is technically called "*a first remove*." The animals bore the respective numbers of 10 and 21, these being the marks stamped upon their horns on purchase, and necessary to be made mention of for the purpose of identification.

On the 23d of December we paid a second visit to Rudington. The local effects of the operation, consisting of *ordinary inflammation, advancing with greater or less rapidity to suppuration*, were marked in all; but, comparatively speaking, they were slight in seven out of the twelve *original* cases. The two animals operated on the same day with the twelve, December 13th, presented a similar condition of the parts, as did also the *two inoculated by the first remove*.

We selected *seven* of the most satisfactory cases from out of the fourteen inoculated *direct* with fluid from the lung, to give trial to *re-inoculation*. *On four of these the re-inoculation produced morbid action equally as great as the original inoculation*; on the others it failed. This fact, which is one of the first importance, we shall have again to allude to, and therefore we refrain from commenting upon it in this place. Between the 23d and the close of the month four more cows were inoculated by "*the first remove*," and it was observed that more speedy action followed this method than that of *direct* inoculation with the exuded serum of the lung.

During the month of December, Pleuro-pneumonia continued to show itself among the animals on the farm, and carried off no less than *seven* of them—six *non-inoculated* and one inoculated. The inoculated cow was, however, one of those which had been operated on by "*a first remove*," on December 19th—No. 21. She was observed to be ill on the *fifth* day succeeding the operation, and an examination showed her to be the subject of Pleuro-pneumonia. The disease advanced so rapidly that by the fourth day of her illness it was deemed prudent to have her destroyed. The autopsy confirmed the correctness of the diagnosis. Mr. Pyatt writes that the right lung weighed 30lbs.

Presuming inoculation does give security, this case must not be ranked among the exceptions or failures, for there cannot be a doubt but that the animal was affected with Pleuro-pneumonia, in its *incubative* stage, at the time she was inoculated. It should be noted, however, that the inoculation *took effect upon a diseased animal, and that its local action was in no way modified thereby*; facts totally at variance with the established laws of inoculation for diseases which are daily

propagated in this manner. The question of inoculation proving abortive as a means of protection, because it was one of "a first remove," cannot be raised in this particular case, as it has been in others, from the facts connected with the time of the animal's illness. With regard to the point of non-protection from this manner of inoculation, we may remark that No. 10, operated upon the same day with No 21, and likewise the four cows previously made mention of as being *also* inoculated by "a first remove," have now been several months on the premises without giving any evidence of disease. In this particular they agree with those inoculated directly from the lung; hence we may infer, that, if one is protective, so is the other. This point, however, will present itself for our examination again in the sequel of this Report.

From the fluid obtained from the lung of No. 21 it was arranged to inoculate more of the herd, and accordingly the animals occupying "Shed 14" were fixed on.

Mr. Pyatt, in his report of the experiment, says, "that the inoculation, which was done the same in all, on December 29th, produced *considerable effect on six of the animals, very little on four, and none on the remaining four.*" Notwithstanding these variable results, the experiments upon the whole were deemed to be sufficiently satisfactory to warrant the continuance of inoculation, and Mr. Paget accordingly determined that such should be done. On January 12th he wrote to the following effect:—

"I am inclined to think that inoculation is protective, for we have had in the fifteen hovel two cases of Pleuro-pneumonia out of three *non-inoculated* animals, while the remaining twelve, all of which had been inoculated, have escaped, with one exception. This exception is No. 21, which received the virus from another cow's tail. I think it will be best to inoculate several newly-purchased animals, for it is something to have protection, even if it be but temporary."

(Signed)

"CHARLES PAGET."

The inoculations were continued from this period to the end of February, with slight interruptions, by which time *all the animals, amounting to about one hundred, were inoculated.*

The extension of the inoculation was accompanied by a marked reduction in the number of the cases of Pleuro-pneumonia. During January three animals died of the disease, two of these being *un-inoculated*; the other inoculated, but only on the day preceding her illness. For practical deductions this animal must be viewed as a *non-inoculated* one. In the month of February four cows sank from Pleuro-pneumonia; two of these had been inoculated and two not. In March a year-old Bull died. This case will be presently



explained. April passed without a death, but May has furnished us with three deaths, and all in *inoculated* animals.\* As in by far the larger number of these cases the local effects differed but little from those which have already been described, it is unnecessary to enter into the details, but a summary of the whole is required.

The inoculations, with the exception of the six† “first removes” previously described, were all made with the serous exudation of a diseased lung. In the major number of instances the inoculation *took the first time*, that is, slight effusive inflammation succeeded by suppuration followed the operation; other animals required *a second*, and a few *a third inoculation* to produce these effects.

Five cows *completely resisted the inoculation*, having been operated on many times at various intervals, without the slightest effect.

In *one* case no evidence of the inoculation was observed for a month; and it is worthy of observation that thrice during this time this animal was out of health, and required medical treatment; at the end of the month the tail became inflamed, and swelled to the size of a man’s arm. The inflammation ended in ulceration and sloughing of the skin, but the organ was saved. This case is also the more remarkable, as, in all other instances where the inflammation has run high, the action has *quickly* followed the operation.

Eight cows lost their tails from mortification, induced by the operation. Evidence of this untoward result was generally afforded about eight or ten days subsequent to the inoculation.

One animal, the young bull previously mentioned, died from the inoculation. The mortification which succeeded extended upwards, affecting the perinæum, rectum, and adjacent parts. His death occurred on the twenty-first day of the operation. The lungs and viscera of the chest were found free from disease.

This freedom from disease of the lungs will be hereafter commented on; it is referred to by the Dutch Commissioners, who, also, in another of their conclusions, have truly observed that “when the violent action occurs, and extends to the more vital parts, affecting the whole system, its progress can

\* A letter received this morning, June 1st, from Mr. Paget, states that “another cow, making the third, has been killed, having the complaint without doubt. She was of the second batch of inoculated subjects.” At the close of his communication Mr. Paget says, “I hope, however, you will feel justified in recommending further trials of inoculation, for I cannot doubt that I have derived great benefit from its use.”



as little be prevented and checked as the disease in general can be cured."

The two inoculated cows which were lost in February by Pleuro-pneumonia were attacked the one three weeks and three days, and the other three weeks and five days, subsequent to inoculation. The effects of the operation are described as being slight.

The three cows which were attacked in May with Pleuro-pneumonia were inoculated, one in January 13th, another on the 20th, and the third on the 21st of the same month. The latter two were both observed to be ill on May 5th, being fifteen weeks after the inoculation. The third cow, inoculated on January 13th, was taken ill on May 22d, and disposed of two days afterwards, being eighteen weeks and three days subsequent to her inoculation. In two of the animals Mr. Pyatt reports that the effects of the inoculation were *comparatively* slight, but yet deemed at the time to be sufficient to protect them.

We now proceed to some experiments which were made in the Royal Veterinary College on animals also furnished for that purpose by Mr. Paget. On our first visit to Ruddington in November, it was arranged to send six cows to London; the animals accordingly were forwarded by rail, and arrived safely at the College on December 10th.

Four days afterwards, it being considered that they had recovered from the fatigue of their journey, we inoculated three of them in the usual place and *somewhat* in the usual manner, *cautiously making the punctures just through the skin of the tail. No effects followed*, and the inoculation was therefore repeated in the same careful manner, at an interval of eight days, that is, on December 22d. This inoculation *also failed*, and, instead of having recourse forthwith to deeper punctures "*roughly made with a bad cutting instrument*," we determined to try *punctures* even still more superficially made, and also scratches of the cuticle. This was done on *all the cows* on December 30th; as many as a dozen *superficial* punctures clustered together on the *labia* or *perinæum*, or more distant places *on the tail*, were made with a grooved needle; in each case the material used being, as before, the serous fluid from a diseased lung. As we had anticipated, this method failed in every case.

It is necessary here to state that one of the cows, which, from the date of her admission, three weeks before, was suspected to have the disease pleuro-pneumonia incubated in her system, from her peculiar cough and other symptoms, fell ill on the day but one succeeding this inoculation. The

animal bore up under the depressing and destructive influences of the disease in its active form for the somewhat lengthy period of twelve days, when death put an end to her sufferings. The post-mortem appearances agreed in every particular with those seen in similar cases.

*Jan. 6th, 1853.*—The five cows were again inoculated in a manner somewhat modified from the former. The skin of the *perineum* was scratched with a lancet, sufficiently deep to cause a very slight oozing of the blood from the numerous erosions, and then upon these places a portion of *diseased lung, well charged with serous and fibrinous effusions, was rubbed* for the space of two or three minutes. The cases were most assiduously watched, so that the slightest indication of the action of the fluid, if specific, would have been observed, but nothing took place even from this plan of operating.

*14th.*—We determined to give trial once more to simple erosions of the cuticle, and to-day inoculated the five cows belonging to Mr. Paget, together with another cow admitted into the infirmary for mammitis, and also a heifer under our care for lameness. Groups of erosions, varying in number from twelve to twenty, were made on the *labia, perineum*, and under surface of the tail, in each animal, and upon these the serous exudation *was rubbed with the finger* for not less than from four to five minutes. No specific effects followed.

*20th.*—Inoculated each of three of the cows again, which had been chiefly the subjects of the foregoing experiments, with two *deep* punctures made with a *grooved needle*, and the two others with four *superficial* punctures, all of which, like the preceding inoculations, also proved abortive.

It appears pretty certain from these experiments that slight punctures, and also scratches of the skin, will invariably fail; a fact which of itself is almost sufficient to disprove the existence of any "special virus" being contained in the exudations from an affected lung. Every person of experience in these matters knows full well that success of inoculation, both with regard to the *local* and *constitutional* declaration of the symptoms, depends on the *smallness* of the quantity of the virus employed, and the *minuteness* of the puncture by which it is introduced into the system.

The virus of Pleuro-pneumonia, if the exuded fluid may be so called, would not, in our opinion, as an animal poison, be an exception to the law which governs the extension and reproduction of such poisons. It was clearly ascertained with regard to the smallpox of sheep, at the time of its great prevalence, that inoculations which were made by deep punctures and the introduction of three or four *ordinary* drops of the

virus, destroyed many scores of these animals before the pock could be developed on the skin. Success here depended, as in all other cases, on the rules which we have described as applicable to the puncture and to the inoculating material. With inoculations for the prevention of *natural* Pleuro-pneumonia the very reverse obtains; success is connected with deep wounds and the employment of three or four ordinary drops of fluid. To return, however, to the experiments; for these things will again present themselves for our investigation.

28th.—Inoculated three of the cows by making an *incision through the skin*, just below the labia of each, and inserting into the wounds a small quantity of serous exudation from a diseased lung, using for the purpose a little friction with the point of the scalpel.

Feb. 1st.—A slight tumefaction exists around the wound in one case. The lips of the other incisions are thickened, but otherwise free from swelling.

2d.—A small pustule has formed by the side of the incision which was yesterday tumefied; but the adjacent skin is free from *undue* redness. Scabs exist on the other wounds, which are now swollen and approaching to suppuration.

3d.—Suppuration is established in all the cases. The tumefaction around the incisions is very slight, and the redness *scarcely* perceptible.

To-day we re-inoculated *these same cows*, by making *clean* incisions through the skin about half an inch long and about three inches below the others, into which was inserted with the point of the scalpel a little of the *purulent* fluid taken from the original inoculated places.

4th.—The pus discharged from the *original* wounds is of a good colour, and the general condition of the parts does not indicate any interference with the healing process being quickly accomplished.

5th.—The swelling around the *second-made* incisions is more than we have before seen. The parts are sore when pressed, and it is evident that the wounds will quickly suppurate.

7th.—Pus is being discharged from the wounds; it is white, but thin. The swelling of the surrounding parts is augmented, but unaccompanied with increased redness.

Incisions were to-day made by the side of the labia in the same three cows, and in like manner a little pus from the *second-made* wounds was inserted.

8th.—The *second-made* wounds are less swelled, and have a more healthy appearance. It will be unnecessary to allude to their condition again.



10th.—The *third* inoculated wounds are inflamed. The swelling and soreness are quite equal with that of the *second* at the same distance of time from the inoculation.

12th.—The wounds have a more unhealthy condition than any of the preceding. The lips are gaping, and the purulent discharge is thin and discoloured.

14th.—Slight ulceration is going on.

18th.—The incisions are more healthy, and time alone is required to effect their healing; they will therefore not again be reported.

Still making these three cows the subjects of experiment, we determined in the next place to inoculate them again with *fluid from the lung and deep incisions*; this was done, and in each case the wounds comported themselves as before.

The *sero-purulent* discharge was taken as early as possible from these "*lung-inoculated*" places and used on *other cows*, in a like manner as it had been in the former experiments on the animals themselves: a similar result attended this procedure. Two sheep were also inoculated with the same purulent fluid at the same time, and the wounds in these animals inflamed and suppurated as in the cows.

We shall now return to the two cows of which no mention has been made since January 20th, when they were for the last time *unsuccessfully* inoculated by superficially puncturing the skin. On February 1st these animals were inoculated by a deep and roughly-made puncture, after the plan we had witnessed in Belgium. At the end of a few days their tails were swollen and tender on the application of pressure. The inflammation increased, and by the eighth day of inoculation pus was being discharged from the incisions. A small ulcer formed near to the place of inoculation in one case, and delayed the healing process. In the other case no such event occurred. By the 16th the wounds were cicatrising.

These being what are described as successful inoculations, we were anxious to inoculate these animals again in the same manner, to ascertain their capability of taking a second time. This was done. In one cow the effects were as marked as before, in the other the inoculation failed.

The animals were next inoculated with purulent fluid taken from an inoculated sore, the incision being made on one side of the *labia*, while on the other side a similar incision, charged with an *irritating medicinal agent*, was also made, that the effects might be contrasted. The wound in which the pus was placed became inflamed the soonest and to the greatest extent, but so slight was the difference between them, that no person ignorant of the operation would have noted it, or any other peculiarity.



The operation was next modified by using in one wound the medicinal agent and in the other *serous exudation*. The order of the phenomena was now reversed,—that is, the wound containing the irritating agent inflamed the soonest and to the greatest extent; otherwise no difference was to be detected.

The final experiment on these animals consisted of inoculating them again with *serum and roughly made punctures*; this *perfectly* succeeded, thus showing that their susceptibility to the local action of the morbid fluid exuded from the lungs was in no way destroyed by the former inoculations.

Some few experiments have been instituted on other animals, to which we will now briefly allude:—

*Feb. 7th.*—Two sheep, a donkey, and a dog were inoculated with serous fluid, and at the same time a heifer which had been three days *previously* inoculated with *sero-purulent* matter obtained from an incision on one of the cows.

*9th.*—The wounds are inflamed in the dog and the sheep; but not in the donkey or heifer.

*10th.*—Inflammation increased in dog and sheep: incision in heifer slightly inflamed: no effect in donkey.

*12th.*—Incisions suppurating in dog and sheep: inflammation increased in heifer: a little swelling in the donkey.

It is sufficient to add, that, after this date, the inoculated place in the heifer suppurated, the action seemingly in no way being controlled by the *previous* inoculation. In short, the two wounds comported themselves precisely as erosions of the skin would have done, received on different days by some slight accident.

The incisions in the dog and sheep healed readily, as did that of the donkey—the latter without the production of pus.

Subsequently two other sheep, two pigs, and a second donkey were inoculated in the ordinary manner. In each case inflammation, succeeded by suppuration, supervened. The sheep and pigs were inoculated on the inner side of the thigh, while on the opposite thigh in each animal a *simple* incision of equal dimensions, viz., about three-fourths of an inch in length, was made with a *clean scalpel* for the sake of comparison. These simple wounds healed readily in all the animals, and without suppuration, except in one instance where a little pus was formed.

Before stating the conclusions to which we have come, with regard to inoculation being resorted to as a means to arrest the progress of Pleuro-pneumonia, we will offer a few observations on some points contained in this Report.

It will be seen, that, although the casualties in Mr. Paget's herd at Ruddington amount to the loss of tails of eight cows

and the death of a young bull, they still are short of those on the Continent. We find it recorded in the report of Dr. Ulrich, that out of fifty-one animals inoculated in July of last year, in an establishment where the disease existed, no less than thirty lost their tails, and four were killed by the operation. Four of the number also died subsequently from Pleuro-pneumonia; and to show that the inoculation had taken effect on these animals, it is remarked that each of them had lost its tail.

The information obtained, however, in Belgium, and embodied in our former Report, showed that the average deaths from inoculation were estimated at 2 per cent., and loss of tails at about 12.

The improvement which we have experienced in this country doubtless depends, somewhat, on the inoculations being made in the winter months, during which time the exudations from the lung undergo slower decomposition, when exposed to the air, than when a higher temperature prevails, as in the summer. It is also attributable partly to the manner of performing the operation, because, although we have been constrained to make deep and comparatively rough punctures, still we have used good lancets, instead of bad-cutting doubled-edge scalpels, the counterpart of a scratching knife, found on one's writing table, and have also refrained from twisting the instrument about in the wound. That the extension of the inflammation to the upper part of the tail and adjacent parts, in so many of the continental operations, depended on these causes, we cannot doubt.

The cases seen at the Brussels school on the fifteenth day of inoculation, where greater care had been exercised, showed the tails of the animals entirely free from swelling and the incisions nearly healed; while many cows at Hasselt, at a far later period, had their tails so engorged by inflammatory effusions as to lead to the necessity of making incisions some 4 or 5 inches long to relieve the distended tissues.

Fortunately, such casualties as these are not of very frequent occurrence; nevertheless they show how dangerous a proceeding it is to introduce, into the living organism of an animal, a fluid which, as a product of disease, has been eliminated from the vessels of another animal of the *same species*. These inoculations in truth very closely simulate wounds received in the dissecting room.

It is an established fact that animal matter, thus accidentally conveyed in dissection from man to man, is incomparably more dangerous than it would be if introduced into the system of any ordinary animal. The reverse of this is likewise equally

true. Thus many a medical student, who perchance may bid fair to occupy an exalted position in his profession, has fallen a sacrifice to a trivial wound received in the dissection of a diseased body, while the veterinary student, on the contrary, from having to dissect our ordinary domesticated animals, rarely suffers from such wounds. This law offers an impediment to, but does not entirely prevent, the conveying of a disease, from animal to animal of a different kind, by inoculation. We have a good example in sheep not being susceptible to the action of the *smallpox virus of man*, although remarkably so to that of their *own smallpox*, and also of man being susceptible to the virus of *his smallpox*, but *not* to that of sheep.

With reference to the decrease in the number of cases of Pleuro-pneumonia at Ruddington since the adoption of inoculation, we should observe that great caution should be exercised in coming to an opinion of the cause of the decline of an epizootic, or even an ordinary contagious affection. Circumstances about which we know but little will cause the outbreak of an epizootic disease, and circumstances about which we probably know less will produce its removal. There are periods in the history of Pleuro-pneumonia on Mr. Paget's premises, when the cattle have been for weeks as free from disease as since they were inoculated. The time, we admit, is longer, but the cause may be the same.

It was acknowledged, even in Hasselt, that they had had as little disease in some summers, prior to the employment of inoculation, as during the last when the system had reached its climax. In proof that inoculation was not the sole cause of this freedom, is the fact that the cattle of the distillers who objected to have the operation performed continued as healthy as those of others who did not so object. What we contend for is, that, as there are no specific *local* effects produced by inoculation, so *protection* does not depend on the special action of a special virus on the organism, as is the case with the vaccine and other similar diseases.

Protection we believe to be more apparent than real, and that it results mainly from *simple* local irritation. When this and the accompanying inflammation are slight, the animal is in constant danger of an attack of Pleuro-pneumonia, even whilst the local action exists: when greater, a simple issue is produced, the effects of which, as a drain on the system, are more lasting and therefore likely to be more beneficial; but when carried to the fullest extent, then the animal's life is endangered from another cause, namely, from the sphacelitic action which ensues. With regard to the utility of simple



issues or setons, it is well known that if these are employed, care being taken *to prevent their weakening effect* on the constitution by the exhibition of *tonic medicine*, or the use even of a nutritious diet, not only Pleuro-pneumonia but many other diseases will be sometimes prevented.

Further, with regard to protection, we must call attention to the present amount of loss in Mr. Paget's herd. The inoculations were begun at the end of November, and with irregular intervals carried on so as to be completed by the beginning of February. Now, dating from the end of November to the end of May, when we have the last report of the health of the animals, it will be seen, by reference to the particulars contained in this report, that during these six months no less than *five inoculated* animals have died of Pleuro-pneumonia after inoculation. This on the year, at the same ratio, would give 10 per cent.—a number equal to the annual average loss of M. Willems, sen., and to guard against which he adopted inoculation.\* It must likewise not be forgotten that in many instances on the Continent, the disease, instead of decreasing, *has progressed much more rapidly after inoculation than before*, affecting indiscriminately the inoculated and the non-inoculated animals. A fact of this kind was to be expected with a contagious disease like Pleuro-pneumonia, when inoculation was roughly done *on animals already of weak constitution* and perhaps badly kept, as thereby their susceptibility would be further increased to the influence of the contagion.

To proceed to other matters. It is stated in the fifth conclusion of the Dutch Commission, and admitted by all observers, that the lungs are not *specially* diseased from an inoculation, although death may result therefrom. To the arguments advanced in our former report on this head, we may add that the non-production of Pleuro-pneumonia by inoculating an animal with the serous exudation from a diseased lung, must be admitted as one good proof, among many others, that such exudation is not a special "virus." If the exuded serous fluid produced *a special and well-marked inflammatory action locally*, prior to generating a peculiar condition of the constitution, although the evidences of the latter might be so slight as to be hardly recognised, as is the case with the vaccine lymph; or if it caused sooner or later the disease Pleuro-pneumonia itself, *altogether independent of such local inflammation*, of which we have an example in Rabies, then there would be no difficulty in admitting that the inoculation of cattle was founded on scientific principles. Neither of these properties has, however, as yet been satisfactorily proved

\* See First Report, Journal, vol. xiii, p. 376.



to belong to the fluid, and therefore we are content to remain among those who do not advocate the system. As a product of a *specific disease*, conveyed from animal to animal *of the same species*, it should produce *that disease*, upon the principle that "like begets like."

It is a property of an animal virus, and common to them all, to multiply to an unascertainable extent within the circulating fluids or blood, when introduced into the organism by inoculation, and subsequently to centre in some especial part of the body. Usually this part is either directly external, or it has a free communication with the outlets of the body, apparently for the discharge of the morbid matter from the system. We observe these things especially to belong to the virus of smallpox, which is, however, but *a type of the class*.

The skin in smallpox becomes the focus of the disease after the multiplication of the poison has been effected. Every vesicle placed on the skin contains the virus; it therefore partakes of the same nature, and is capable in the same manner of further extension as was the original vesicle. The inoculated disease is thus proved to be identical with the natural; it is accompanied with the same symptoms, constitutional and local, and is alike capable of indefinite extension both by infection and contagion. How entirely opposed to these laws is the inoculation of cattle for the prevention of *natural* Pleuro-pneumonia. According to Dr. Willems and other advocates of the system, the virus, when introduced, affects the blood; augments within it; causes both local and constitutional disturbance; is reproduced in the areolar tissue of the tail at considerable distance from the site of its insertion; is capable of being transmitted from animal to animal; gives immunity against an attack of Pleuro-pneumonia—thus far agreeing fully with the phenomena of *genuine* inoculation;—and yet it never produces the disease, although it not unfrequently destroys the animal even weeks after its employment.

The pillar on which inoculation stands is that of a disease being capable of transmission from one animal to another by the application of a special cause. Remove this, and it falls. The giving of immunity, or destroying the susceptibility to second attacks of the disease, are but as the ornaments of the capital, adding to its beauty and its value, but not to the necessity of its existence.

Fortunately, however, for the ends of science, inoculation, or the operation of the special virus of a disease on the body, is so far beneficial, that nature, having freed herself of the materials existing in the organism which are capable of being

converted into the same description of virus as that which had been employed in the process, is not again susceptible, as a rule, to a second action of the morbid matter. In smallpox and other diseases of the class, we trace this immunity to the production of the malady by artificial means, and this production to an augmentation of its *special* virus within the organism.

The *protection* afforded by *vaccination* to an individual against smallpox stands upon a foundation equally secure with that of inoculation. "The vaccine disease" is in reality the smallpox of the cow. By the process which has been named *vaccination* the smallpox of the cow is transmitted to man, and fortunately with incalculable benefit, because while the disease possesses the *same nature*, it wants the *malignancy* of human smallpox.

The experiments we have herein recorded prove that some of the animals were susceptible to the action of the serous exudations of the diseased lung, not only *a second but a third time, or oftener*. These cases are too numerous to be viewed simply as exceptions, for in our first experiments, out of *seven* selected animals, *selected because of the success of the inoculation*, no less than *four* were immediately acted on by a second inoculation. Nor do we stand alone in proving these facts; the Belgian Commissioners, as we have previously remarked, state "that the phenomena succeeding inoculation may be produced several times in the same animal;" and they add, what is of equal importance, "which may or may not have been attacked with exudative Pleuro-pneumonia."

We admit that the period of immunity afforded by inoculation as a general principle does vary in different diseases, and also in the same disease in different animals. What, we ask, is the proof of this immunity being lost? Why, the susceptibility of the animal to a *re-inoculation*. If this should fail, the animal was secure; if it succeed, the animal was unprotected. Among the cows we have alluded to were some which had been inoculated only three weeks before, and in others the effects of the first operation were still manifest at the time of the *successful re-inoculation*. In our experiments also, when we succeeded in producing effects which would give perfect satisfaction to the advocates of the system, by inoculation with *the serous fluid*, we have taken the product of this inoculation and used it forthwith on the *self-same* animal as well as *on others*, and obtained results equally as great as from the original inoculation. How could these things be explained were we dealing with a specific virus?

We have called this product a *sero-purulent* fluid, and so in

reality it is when first exuded from the wound, but it presently becomes altogether and entirely pus. Our experience therefore confirms that which we had anticipated with regard to these inoculations *by removes*, namely, that the effect would be both more certain and speedy, because *pus* was the material employed. Removes, therefore, cannot be effected on true or scientific principles. We have no *materies morbi* to be modified and improved by being passed through the systems of *healthy* animals in succession, as is the case with the *primary* virus of a smallpox vesicle.

The occasional incubation of the so-called "pulmonic virus," after its introduction into the wound, of which fact we have recorded some notable instances, has been advanced as an argument in favour of its specific nature, and it has been said to agree in this particular with the poison of rabies. To this we reply, that when the rabid virus does come into operation, no matter how remote the period may be, it produces that dreadful disease (rabies); but that when this supposed virus of Pleuro-pneumonia begins to act, it produces only local inflammation and ulceration. The cause of the serous fluid remaining now and then inert for three or four weeks may be somewhat difficult to explain; but no more so than that of two animals receiving an injury at the self-same time by which some foreign agent enters the body, and the one being quickly affected with local inflammation in consequence, the other not being affected perhaps for some weeks. All pathologists are familiar with facts of this description.

As to "Jennerian principles" being the foundation of these inoculations of cattle, as has been stated by Dr. De Saive and others, we hesitate not to say, that, whatever else may belong to them, no principle expounded by Jenner will be of the number. By vaccination, which, as we have shown, is essentially inoculation, Jenner either prevented the small-pox or mitigated its severity when it did occur. Pleuro-pneumonia, on the contrary, when occurring in an inoculated animal, is in no way lessened either in its severity or fatality by the inoculation of that animal with the so-called special virus of this disease. On this point there seems to be no diversity of opinion. Belgian, Prussian, Dutch, and English investigators agree here. We say nothing of France, as the report of her Commission has not yet reached us.

We now come to a question to which allusion has previously been made as affecting our credit, and which we find published in the Belgian report. It appears that two cows



belonging to M. Willems, sen., were attacked with Pleuro-pneumonia subsequent to their inoculation, and that one died and the other was killed, as her recovery was past hope. The *onus* of this casualty would seem to have been intentionally thrown upon us, as we are said, by M. Willems, sen., *to have inoculated these animals when in Hasselt, and to have used for the purpose improper material.* It will, however, before making any comments on this statement, be better to quote at length the particulars as published in the report.

Under the heading of "FAITS CONTESTÉS," p. 174 *et seq.*, the Commissioners, quoting the minutes of the proceedings at Hasselt, say, "On the 2d of December, MM. J. Nolens and T. Vaes proceed to open a beast, aged five years, belonging to M. Willems. The chest contains an abundant sero-sanguineous effusion, in which float albuminous flakes; the left lung, adhering to the costal pleura, is hepatized at its anterior portion." MM. Nolens and Vaes add, "The particulars that we have gathered from *MM. Willems, father and son*, are that *this beast was inoculated during September last by one of the two English veterinary surgeons\** who came to examine their cattle, and who wished to see the application of the process; that it was inoculated with virus taken from the tail of another inoculated beast; and lastly, that the operation had *no results*. A portion of the lung and the end of the tail, upon which *two large cicatrices* may be perceived, are contained in the jar No. 19."

"On the 16th December, MM. Vaes and Maris, delegates for that purpose, went to the knacker's yard in order to make an autopsy of another beast belonging to M. Willems. The animal, which was inoculated on September 1st, bears the mark of a *successful operation*. It presented the first symptoms of exudative Pleuro-pneumonia on December 4th.

"On the 11th, M. Vaes was requested by the proprietor to treat it. The treatment was continued till the 15th, when it was decided that the animal, being unfit for consumption, should be killed and buried. The chest contained a large quantity of fluid, the right lung was adhering to the costal and diaphragmatic pleura, was entirely hepatized and of enormous size. A part of the lung and the end of the tail are preserved under the cover No. 25.

"We read in the minutes of the proceedings," add the

\* It is necessary to explain that I was accompanied in my visit to Belgium by my friend and colleague Professor Morton, who was desirous of going to the Continent for his summer's vacation. He never on any occasion interfered with my investigation, it being a thing entirely foreign to his avocations as a chemist and his taste as a man of science.



Commissioners, "that *M. Willems* declared to the veterinary surgeon, *M. Vaes*, that this beast was successfully operated on by the same English veterinary professor who inoculated the one which was killed in consequence of *Pleuro-pneumonia* on December 2d, and with virus taken from the tail of another beast."

"Dr. Willems explains how it was that these animals were not protected. 'Two beasts,' says he, 'inoculated, as an experiment, with *pus* (not lymph\*) taken from an incision made in the tail of an animal previously inoculated, in the presence of Professors Simonds and Morton, who made a note of it, have contracted the disease; they were placed among the other cattle in the stable. Two days after the insertion of the virulent matter the small wounds were suppurating.'

"We here insert the declaration of *M. Willems'* father, which we refrained from inserting in the minutes of the Hasselt Commission at p. 145. This distiller informs us, and begs us to make mention of it in the present Report, that some cases of failure which the delegates of our Commission have been enabled to prove in two animals coming from his stables, furnish him with a new proof of the system of inoculation adopted by his son. 'These two beasts,' says *M. Willems*, 'were operated on by the Professor of the Royal Veterinary College of London, with matter resembling *pus*, taken from another inoculated beast, which he considered improper. The phenomena of inoculation succeeded quickly upon the operation, and went through the various stages in eight days.'"

The Commissioners further observe that, "in our sincere desire to arrive without prejudice at the discovery of the truth, we have contented ourselves with the simple statement of facts, refraining entirely from discussing them. We have said, at the beginning of this report, that *all the uncertain cases have been passed by in silence, or have been presented with a character of doubt attached to them*. We also give *M. Willems* full credit—1, for reporting, even to the minutest circumstance, all facts which have appeared favorable to inoculation; 2, for placing, under the head of '*Faits contestés*,' everything which the physician of Hasselt assumes has resulted from an improper operation, and also the two cases which

\* It may be necessary to explain that the term *lymph* is used by the medical profession to express the specific contents of a vesicle, such as that produced in vaccination. It is held by many to be synonymous with *virus*, and is employed in that sense in this place by Dr. Willems, who, however, speaks almost invariably of the "*special virus*" of pleuro-pneumonia.

occurred in his father's stables. Having made all these concessions, we have still *fifty-five* animals in which inoculation has failed to prevent the invasion of exudative Pleuro-pneumonia. The facts observed at Niony Maisières, a focus of the epizootic, are of great importance.\*

We will first observe, with regard to this accusation, that rumours of it had reached us some weeks since, which, however, we refrained from taking any notice of at that time, not believing it possible that any person would have had the temerity to publish such an incorrect version of the facts of the case. Without multiplication of words, we will at once say, and we challenge proof being produced to the contrary, that we neither *suggested* the experiment, *selected* the material, nor *performed* the operation. That two cows were inoculated on the 1st of September, with some *viscid serum* obtained from deep incisions made in the tail of a cow, to relieve the inflammation which resulted from her previous inoculation, and that we were present and made notes of these cases, is perfectly true. These inoculations were *the very first* we witnessed, and were done *by Dr. Willems to show us the method of operating*. This fact is of itself almost sufficient to negative the statement of MM. Willems, father and son, "that one of the English professors inoculated the animals." The son here named we understand not to be Dr. Willems, but his brother, because, as will be observed, the Doctor gives a different version of the affair. How has it happened, that such a great discrepancy as that which exists in the statements of the MM. Willems and Dr. Willems, crept into the report, if the simple truth had only to be told?

Besides this there are various other discrepancies in the narrative which are irreconcilable. We have the statement of the Doctor that in two days from the inoculation "the small wounds *were suppurating* in both animals;" while M. Willems, sen., says, in the first beast which died there were *no effects produced*; and the delegates of the Commission assert there were "*two large cicatrices on the tail*"—which they preserve, together with a portion of the lung, to prove, *firstly*, that the animal had been inoculated, and, *secondly*, that it died with Pleuro-pneumonia. "Two large *cicatrices*," and no result from the inoculation:—how can this be explained? We, from our intimate knowledge of this particular case, can say that *an ulcer formed by the side of the place of inoculation, and produced the second cicatrix*.

To pass to the other case. The inference which Dr. Willems wishes to be drawn from the speedy suppuration of

\* The italics in the forgoing extract are our own.

the small wounds is, that the beasts were not protected, because *not specific* but *common action* resulted from "*the virulent matter—the pus*"—which was employed; in other words, the inoculation was unsuccessful. Opposed to this, *first* comes the statement of MM. Vaes and Maris, that the animal bears the mark of a *successful* operation; *and then* the declaration of M. Willems, sen., "that this beast was *successfully* operated on by the same English veterinary professor who inoculated the animal that was killed in consequence of Pleuro-pneumonia." The Doctor virtually says that both the animals were unprotected; that neither was successfully operated on. The father says "that *one* of them was successfully inoculated, but the material used on *both* was bad;" and the delegates write, "*two large cicatrices exist on the tail of one of the animals, and the other bears the mark of a successful inoculation.*"

If Dr. Willems knew, in September last, that these cows were unprotected, how comes it that they were left in a focus of the disease under such circumstances for three months, daily exposed to danger? Instead of such contradictory statements, we should have wished to have seen the Doctor nobly taking his stand and saying,—These cases are the only exceptions, in my *own* operations, to the rule which I have proved in hundreds of instances to belong to inoculation as preventive of Pleuro-pneumonia:—as exceptions, they show how great is the value of my discovery. And in truth we will now say, for ourselves, that if this system of inoculation be built on a foundation equally secure with that of inoculation or vaccination for small-pox, not ten times the number of failures which have occurred in M. Willems' establishment will lessen our opinion of its value. It must be remembered, however, that Dr. Willems originally took his stand on the untenable ground, that inoculation properly performed *never would fail* to give immunity to the animal against Pleuro-pneumonia.

We now turn to the assertion that the animals were "inoculated, as an experiment, with *pus* (*not lymph*)," an assertion, by the bye, equally correct with that of our having inoculated the animals.

Dr. Willems says we made a note of the case; this we have admitted to be strictly true; and fortunately we have that note still standing in our memorandum-book. It runs as follows:—

"Sept. 1, 1852.—Saw two cows with deep incisions in their tails, situated far above the place of inoculation, and freely discharging a *glairy albuminous or serous fluid*. Dr. Willems called this "*bon virus*." He

took some, secured it between two pieces of glass, and gave it me. He also inoculated two cows with it to show me the manner of operating."

Thus we see that when these cows were inoculated it was "*bon virus*," so good that we were presented with some of it, to bring home for use on the cattle of England; but when one of these self-same cows (for it is not said that both of them were inoculated on September 1st, and therefore possibly not with the same material) contracted the disease of Pleuro-pneumonia, then it was "*virulent matter*," "*pus (not lymph)*." We have more notes in our memorandum-book, and will produce one, as possibly it may refer to the other cow mentioned in the foregoing extract as being "inoculated during September last."

"Sept. 9.—Saw two cows at Willems, sen.'s, with gangrene of their tails, or rather of the stumps, their tails having been amputated high up. They were inoculated with serous fluid expressed from a diseased lung. *The fluid is said not to have been good, but yet twenty more cows were inoculated with the same material.* These cows are reported to have done well. Doubtless one of these animals will die; the superior part of the stump, labia, and adjacent parts are gangrenous. A portion of gangrenous skin was sliced off by Dr. Willems, who said, with emphasis, in answer to my question, that the virus it contained was *très-bon*. When asked again if it was not charged with gangrenous materials, '*Non, non*,' was the reply. . . . . I considered this skin such a treasure that I begged a bit of it, and carefully packed it up in the MM. Willems' presence."

In taking leave of this question we wish again to record our regret that we should have been compelled to give particulars *in extenso* which we had carefully avoided even the mention of in our first report. Justice, however, to the Society which we had the honour to represent in this investigation, and justice to ourselves, required that the full yet simple truth should be declared.

Elsewhere we have pointed out the danger which is connected with the introduction of diseased exudations or products into the organism of a healthy animal. In proportion to the extent and duration of a malady, so will these exudations become more vitiated, as well as changed by their retention within the body, by the operation of chemical laws, and the danger of the proceeding will be correspondingly increased. Some of the continental experimenters, and among them Dr. Lüdersdorff, have said that *no effects* will follow the employment of the serous fluid which is effused into the areolar tissue of the lung at the commencement of Pleuro-pneumonia. They add, that in an advanced stage of the disease the effusion is almost certain to produce its action, and that at the termination of the malady not only does it



never fail to act, but that it often produces the death of the inoculated animal from the mortification which ensues. These phenomena are just those which medical men know to belong to dying, dead, and decomposing animal matters in these different conditions, giving us another proof thereby that no special virus exists in the exudations of a diseased lung. It must be remembered that in small-pox, to which we have so frequently alluded as the best example of a specific disease, *the virus* is equally present in the *first* as in the *last* exudations.

As we have not to discuss the utility of other prophylactic measures besides inoculation in Pleuro-pneumonia, we end this report by giving *seriatim* the conclusions deduced from our investigations and experiments:—

1. That inoculations made by superficial punctures and simple erosions of the skin invariably fail to produce any local inflammatory action, being the reverse of the case with regard to the vaccine disease, smallpox, and other specific affections, of which it is an indication of success.

2. That the employment of *fresh* serous fluid, and a cleanly made but *small* incision, during the continuance of a low temperature, will also almost always fail to produce even the slightest amount of inflammation.

3. That deep punctures are followed by the ordinary phenomena *only* of such wounds, when containing some slightly irritating agent.

4. That with a high temperature, roughly-made incisions, and serous fluid a few days old, local ulceration and gangrene, producing occasionally the death of the patient, will follow inoculation.

5. That the *sero-purulent matter*, taken from an inoculated sore, causes more speedy action than the *serum* obtained from a diseased lung, and that “*removes*” cannot be effected on scientific principles.

6. That oxen are not only susceptible to the action of a *second* but of *repeated inoculations* with the *serous exudation* of a diseased lung.

7. That an animal inoculated with the serous exudation is *in no way protected even from the repeated action* of the sero-purulent fluid which is produced in the wound as a result of the operation.

8. That animals not naturally the subjects of Pleuro-pneumonia, such as donkeys, dogs, &c., are susceptible to the local action both of the serous exudation from the lung and the sero-purulent matter obtained from the inoculated wounds.

9. That the serous fluid exuded from the lungs is not a specific "virus," or "lymph," as it is sometimes designated.

10. That inoculations made with medicinal irritating agents will be followed by similar phenomena to those observed in inoculations with the exuded serum.

11. That inoculation often acts as a simple issue, and that the security which at times the operation apparently affords depends in part upon this, but principally on the unknown causes which regulate the outbreak, spread, and cessation of epidemic diseases.

12. That inoculation of cattle, as advocated and practised by Dr. Willems and others, is not founded on any known basis of science or ascertained law, with regard to the propagation of those diseases commonly called specific.

13. That Pleuro-pneumonia occurs at various periods of time, after a so-called successful inoculation.

14. And lastly, that the severity of Pleuro-pneumonia is in no way mitigated by previous inoculation, the disease proving equally rapid in its progress and fatal in its consequences in an inoculated as in an *un*-inoculated animal.

JAMES BEART SIMONDS.

June 1, 1853.

## DEATH OF THE LION IN THE ZOOLOGICAL GARDENS.

ALL our readers and the frequenters of the Zoological Gardens, will be very sorry to hear of the death of the lion "Jupiter," which has been so long the ornament of the collection. We noticed last week his illness, which it was then apprehended would prove fatal. His malady (according to the opinion of seven medical men who attended the royal patient) was influenza of an aggravated character; and for some time he refused food, but for a day or two before he expired, was induced to take a couple of quarts of strong beef tea with brandy. From the moment he grew seriously ill, the noble animal was gentle and tractable, and not only submitted but seemed to wish to have his head and face bathed by Green, who was unremitting in his attention, stopping up whole nights, we might say, in the cage with the august sufferer. Notwithstanding all the attention paid his case, however, he sunk rapidly until Tuesday afternoon, when he expired, leaving a young widowed lioness and two helpless cubs, happily well-provided for. During his illness, and as long as his dead body was left in the den, the lioness, which

was in the next cage with her young ones, was furious in her grief; but after the body was removed, she became tranquil, and is now once more as lively as any gay young leonine relict might be expected to be. The orphan cubs are quite unconscious of their bereavement. Jupiter was one of the finest young lions of his age in Europe, and with the lioness and her cubs, formed a right royal family. His estimated worth in the "lion market," was about £500, so that the Gardens have suffered a sharp loss, but his place will soon, we trust, be filled by an equally attractive animal. The lungs, viscera, &c., were in a most healthy state. Amongst the medical gentlemen unremitting in their attention, were Mr. Colthurst, Dr. Brittan, Dr. Trotman, Mr. Smerdon, Mr. Cross, &c., &c., and in their presence the body was opened, when the *post-mortem* examination confirmed the opinion formed by Mr. Colthurst, who first saw him, that the cause of death was influenza. To whom the lion bequeathed his skin we do not know, but his skeleton is to be set up in some part of the Gardens.

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### EVERY MAN TO HIS TRADE.

*To the Editor of the Bristol Times and Felix Farley's Journal.*

SIR,—I perceive by a paragraph in your paper of last week, that several medical gentlemen were "unremitting in their attention" upon the sick lion, since dead, and you give the names of four or five practitioners who were present at the last moments, and assisted at the *post-mortem*, on that lamented animal.

Now, as a *veterinary* surgeon, I wish to know where the line of practice and professional etiquette is to be drawn. Any one of those four or five gentlemen would be no doubt indignant if I were to be called in to attend one of their two-legged patients, and would of course refuse to meet a *veterinary* surgeon in consultation on the case of a human being. Have I not therefore good cause to complain of their want of consideration and delicacy, in invading my legitimate province. My diploma to treat the brute creation is as valid as theirs, to practise upon a Christian people, and in the name of every sense of equity, I ask them why they intruded on my legitimate charge. In this particular I ought to be able to say with Alexander Selkirk,

"I am monarch of all I survey,  
My right there is none to dispute,  
From the centre all round to the sea,  
I am Lord of the fowl and the *brute*."

But how can I make any such boast when medical gentlemen so forget what is due to me and my profession, as to tender their services in the case of a sick lion. What is the use of my making one particular branch of anatomy and physiology my study if my existence is to be ignored when an animal worth more than many a man would sell for is in a fatal illness? Neither I, sir, nor the lion got a chance—he of living or I of curing him: for though I admit the skill of every one of those gentlemen in *their own* business, I deny that they know anything of mine. Had I been called in, sir, poor Jupiter instead of being skinned, might now have been roaring in his glory; and I would suggest, sir, whether those gentlemen might not all be tried for lionslaughter, as I should certainly be for manslaughter had I attended a man and he died under my hands. We must keep the professions distinct, sir, or there is no use of colleges—the line is defined and must be observed, and the invasion on one side treated with as much severity as on another. Let the medical doctors attend to the Lords of the Creation and leave the Lords of the Forest to us veterinary surgeons: or if they will meddle with animals out of their province, let them act upon the Latin proverb: “*Fiat experimentum in corpore vili*,” and try their hand upon a creature of less marketable value than a lion; let them confine their experimental practise to the monkey cage, where some of the Hunterian discoveries may be worked out, and their researches still further illustrate the interesting department of comparative anatomy. While the learned conclave were shaking their heads in front of the bars of poor Jupiter’s cage, and poor Jupiter drooping his own inside out, perhaps if we could interpret the chatter of Master Jacko and his mates close by, we should have heard them say, “Poor Peter is a gone coon, for they have called in the doctors of the two-legged animals to see his case.” I defy them, however, to be competent, because they happened to be able to treat a biped whom the philosopher called a two-legged animal without feathers, to be on this account competent to come into my province, and undertake the cure of four-footed creatures. For the most part medical men drive the most hungry cattle going, and all because they physic them themselves; but if they will kill their own carriage horses, let them leave the lions for the future to me.

Yours, Sir,

A VETERINARY SURGEON.

\*.\* The two foregoing paragraphs are both extracted from the BRISTOL TIMES; the former bearing date 28th May,



the latter, 4th June, 1853. "A Veterinary surgeon" has good right to complain of such misapplication of science; not that the physicians are so much to blame as the proprietors of the Gardens who sent for *human* doctors to attend sick *brutes*. However much we may agree in *principle*, in *practice* we are as wide apart as the poles. Indeed, it is proverbial that no class of men know so little about horse and cattle practice as surgeons. And well may they, since the medicines that purge and vomit, and sweat, and give ease and sleep to *their* patients, are to ours perfectly inert. For instance, a man will purge from an ounce of salts, or ten grains of jalap or rhubarb, or an ounce of castor oil, not one of which medicaments will, *in any dose*, take the slightest effect on a horse. Then again, a horse cannot vomit at all, neither can he be made by medicine to sweat. How it was anywise within the scope of possibility or probability for any or all of these medical gentlemen called to attend on a sick lion, to adapt or metamorphose their practice of medicine to his case, let it have been what it may, we have yet to learn. The case of disease in a *lion*, one out of all routine of practice, is enough to puzzle a *Veterinary* surgeon, let alone a surgeon. However, the Gardens have lost their "Jupiter," and well the proprietors deserve to be so served; though the brute king's demise will be mourned by all his subjects within the demesne of the Gardens, to say nothing of the remorse of the Committee of Governors.—ED. VET.

## THE VETERINARIAN, AUGUST 1, 1853.

Ne quid falsi dicere audeat, ne quid veri non audeat.—CICERO.

To those of our readers who may not have any very clear notions about military tactics, and yet may feel desirous of learning how horses engaged in such scenes are apt to fare, and who live at too great a distance from Chobham, in Surrey, to afford them much, if any, chance of "seeing the camp," a few lines of illumination on this branch of military *veterinarianism* may not, at such a moment as this, be altogether out of place. The cavalry regiments engaged therein, a few weeks before the day of encampment, received a "circular," to prepare their horses for the change from in-doors to out-doors, by opening their stable windows and giving the air free access to them; though it was manifest to those who

understood, or had had any experiences of such translations, that there was little to fear in removing horses from warm situations into cold ones, but a great deal to fear in the converse of this; and particularly should any foulness be permitted to ally its effluvia with the changed and comparatively close atmosphere of the stable. Of anything of this kind, however, no mention whatever was made or even hinted at,—a proof to us that veterinary hands could have had nothing to do with framing so one-sided and contrary an order. After all, however, the warning proved of no avail; for, during what warm weather there was, and so long as the wind was still, the tented stables were found to be even closer and warmer than those the horses had just left.

The camp stables erected for the cavalry consisted of oblong sheds, having sloping canvass roofs, and sides thatched with the branches and cuttings of the fir trees, the trunks or poles of which furnished pillars of support to the temporary fabric. To serve to fasten the horses up to, by the means of their head collar-chains, posts with hooks or rings fixed to their tops, called “piquet posts,” were driven into the ground, along the summits of which, through the rings, was extended a rope of sufficient thickness and strength to hold the horses linked to it by their head collar-chains. The posts, with the ropes, were four feet in height, and the stables’ whole dimensions were 30 yards in length by 15 yards in breadth, containing 30 horses each, allowing 3 feet standing breadth for each horse, which afforded barely room enough for men to go up alongside to feed and groom them, and to pass along behind the horses. There were two rows of piquet posts along the middle of the stable, with double ropes, to which the horses were fastened in such manner as to stand face to face, with about four feet of interval between them, and sufficient space behind them to admit of narrow passage through the stable. This plan of fastening up the horses was found objectionable, not only on the score of the piquet posts being insecure in the ground, and so being frequently drawn out by the horses, but also from the liberty which tying so low, together with their length of collar-chain, gave the horses of kicking and biting one another. This was in a measure remedied by running a

cross-rafter of fir-poles through the stable, and fastening the horses to this instead of to the piquet rope ; though, when this was done, of course the horse could neither lie down nor eat his hay off the ground. As for the former, it was considered for kicking and unquiet horses rather an advantage than otherwise ; but, to enable the horses to pick up their hay, it was found necessary to liberate their heads, at least for the time of feeding.

With all the precautions and expedients that could be adopted at the moment, several accidents, and some very serious ones, happened to the troop horses during the early days of their encampment ; though afterwards, as the horses got used to their novel situation, and became steadied down by work, the mishaps became fewer, and of comparatively unimportant character. Seven horses received kicks fracturing their tibiæ ; two had their abdominal parietes torn through by the hooks of the piquet posts, one of which had his bowels let out, in which condition, trampling his intestines down underneath his feet, he got loose in the night and galloped some distance over the common ; while others received kicks and bites and other injuries, which incapacitated them for a longer or shorter time from continuing their duty. In so far as regards sickness, hardly more, if so many, casualties occurred among the horses as might have been looked for in their stables in barracks. Two horses in the lines were said to have become glandered, and were shot ; while another fell sick in a manner to show that he was the victim of the worst form of influenza. Still, the horses in general—though, from the work they had, nearly every day, more than they had been accustomed to, as well as from the indifference and occasional scarcity of supply of water, fell off somewhat in their flesh, and in some few cases lost their condition—maintained excellent health, and were, with the exception of some lame ones, and others that were saddle-galled, in capital trim, at the expiration of the term (about a month) of their encampment, for an expedition in earnest. One remarkable change the horses experienced was, that their hoofs, from constantly standing upon soft and humid ground, grew and expanded a great deal.

The grand object of instituting the encampment being that

soldiers might thereby learn to endure and enact like hardships and expedients in case necessity should at any time call on them so to do, we, as veterinarians, and as military veterinarians especially, feel ourselves invited, on an occasion like this, to say, if we have anything by way of suggestion for alteration and improvement in our own department, to offer in case another encampment should be ordered or demanded of us. The piquet posts and ropes certainly proved objectionable, as well on account of their shortness, as from the liberty of head they afforded the animal, and consequent facility with which he was able to turn his croup round and kick at his neighbour. The cross-rafter went greatly to prevent all this. It is notorious enough that, unless a horse can get his head at liberty, he has not the power of doing much mischief with his heels; and so it was, by confining his head, that the use of the rafter was chiefly shown. But rafters and supporters for them are not in all situations to be had; neither can they so well on a march be carried with troops as piquet posts and cords can, therefore are not so convenient. To remedy this, we say, make the piquet posts *double* their present length, which would add very little to their portability, while they might serve so much the better as fastenings for the horses. The common notion of fastening a horse up is, that, so long as he is so tied that he cannot run away, it is sufficient; but this is, as is well known to those accustomed to horses, a long way from being the sole requisite. Besides making the piquet posts longer, the rope running through them should be tarred, tar being especially obnoxious to horses, and so preventive of their gnawing or licking them.

In India, where the horses, from being most of them entire, are awful kickers, and where they require to have no stables, they do not piquet but *peg* their horses to the ground. From the head-collar comes one, sometimes two long ropes, which are fastened to pegs in the ground in front of the horse; while to each hind heel is fastened a simple sort of button or slip-knot hopple, from which come two long ropes, one from each leg, which are united into one, and by a single rope which is fixed to a peg inserted in the ground directly behind the horse: thus, by two or three pegs and two or three ropes, confining the horse, but with some range for his head and heels, in the open



air to the same spot, where he can eat and drink, and lie down and take his rest at pleasure. There have been some notions entertained of adopting, or at least of putting to trial, such a mode of fastening at the camp; and we have seen one experiment made which certainly augured favorably. Were it adopted, the piquet posts would require to be driven into the ground to such a depth as not to allow them to stand higher than a couple of feet out of it.

## TRANSACTIONS OF THE ROYAL COLLEGE OF VETERINARY SURGEONS.

### QUARTERLY MEETING OF THE COUNCIL.

Held on WEDNESDAY, JULY 13, 1853.

*Present*:—Messrs. Braby, Burley, Cherry, A. Cherry, Ernes, King, Lepper, Nice, Silvester, Turner, Wilkinson, and the Secretary.

H. LEPPER, Esq., Vice-President, in the Chair.

The *Secretary* read the minutes of the preceding meeting, which were confirmed; also a communication from Professor Simonds, postponing his motion.

### EXEMPTION BILL COMMITTEE.

The *Secretary* read the following report from the Exemption Bill Committee:—

#### *Report of the Exemption Bill Committee.*

“Your Committee have to report, that, having ascertained on the authority of Sir J. Shelley, Mr. Denison, and others, that the present Government are decidedly opposed to granting any bills of exemptions, they decided on withdrawing theirs, and applying instead for a similar one to that obtained by the Pharmaceutical Society, to prevent persons not being members of the body corporate, calling themselves Veterinary Surgeons, and directing your secretary to request Mr. Garrard to prepare a rough draft of a bill to lay before the Council. Mr. Gabriel waited on that gentleman accordingly, and was informed that the expense of preparing the draft would be between £20 and £30, and that when so prepared it would be so much waste paper, as he did not think there was a chance of its being carried; that if we wanted a prohibition bill, we must invent a new title, as the Pharmaceutical Chemists had done—they not having ven-

tured to apply for a bill to prevent a man calling himself merely a chemist, and then obtain an Act to secure it solely to the members of the body corporate—upon hearing these opinions your secretary declined ordering the draft of the bill until the opinion of the Council had been taken on the matter.”

In reply to a question from Mr. King,

The *Secretary* said the Pharmaceutical Society first applied for a bill of exemptions and prohibitions, to prevent men calling themselves chemists and druggists, but were obliged to give up their claim; and it was only by inventing a new name, that of Pharmaceutical Chemists, that they could obtain an Act to restrict the use of the name solely to their own body. The question now was, if there was no probability of the name by which veterinary surgeons were known being changed, whether it was desirable to go on with the bill?

*Mr. Silvester* moved, and *Mr. Burley* seconded, the following motion:—“That the application for the Bill of Prohibition be deferred.”

*Mr. Ernes* said there was one thing he did not understand in the instructions given to the committee. The words were “according to the principles of the Charter.” He was not aware that the Charter contained any principles which would authorise them to apply for the Bill. He thought they were entitled under the Charter to a prohibition to prevent people calling themselves Veterinary Surgeons, but nothing further. After all, however, the matter rested principally with themselves, in taking care that no incapable individuals got into the profession.

*The Chairman* put the motion, which passed unanimously.

## FINANCE.

*Mr. Cherry* moved, according to notice,—“That a committee be appointed to inquire into the finances of the Royal College.” The first thing towards doing business correctly was to have good accounts. Now, he had gone through the various printed reports of the Council, and found great discrepancies. There was a balance on the 1st of May, 1848, of £256; when brought forward in April, 1849, it was said to be only £193; which balance was carried on as correct. Again, on the 4th of May, 1846, there was a balance in hand of £265 odd; when brought forward on the 4th of May, 1847, it was only £260. A subscription of £24 2s. had also been received in June, 1846, and had nowhere been accounted for. Here discrepancies, amounting to £62 2s. 6d. had not been ex-

plained in any part of the accounts ; and he therefore moved for a Committee to inquire into the accounts and report upon them.

*Mr. Wilkinson* seconded the motion, expressing a hope that some explanation from the Secretary, or the gentleman during whose term of office the discrepancies occurred, would prevent the trouble of appointing a committee.

*Mr. King* said he supposed *Mr. Wilkinson* referred to him. As far as he knew about the accounts, he believed they were looked into by the succeeding Treasurers, Messrs. Field and Henderson, and somebody else. They said there was a deficiency of £5 in the account, which he (*Mr. King*) could not understand ; but he paid it, rather than have any further trouble in the matter. That was all the explanation he could give.

*The Secretary* said these discrepancies did not by any means constitute a new topic ; they had been brought before the Council repeatedly. They were fully investigated and accounted for at the time each discrepancy occurred. He could not tell, therefore, why they were again referred to, except to throw an onus which was perfectly unjustifiable on the gentlemen who had so worthily filled the office of Treasurer to the body corporate. The sum alluded to as a deficiency on the part of the first Treasurer, *Mr. Frank King*, had nothing to do with the matter ; it was set straight before the accounts were published. The first discrepancy mentioned by *Mr. Cherry* depended entirely upon the question of the diplomas. At that period every student had to pay five guineas previous to his examination, and five guineas on obtaining his diploma. It was taken for granted that every gentleman who had won his diploma would be glad to obtain it, and pay the additional five guineas,—making ten guineas for each gentleman. Now, he (*the Secretary*) had in his possession a number of diplomas, worth, or considered to be worth, five guineas each, which had never been claimed by the gentlemen entitled to them. These would be found to make up the alleged deficiency. This matter had been mentioned in Council again and again, and had never been thought anything of, till now it had been resuscitated. In the other case, a discrepancy of some £20 was occasioned by the Treasurer, *Mr. Wm. Field*, having a private account at the same bankers as the College account ; and it so happened that a cheque was passed to the one account which should have gone to the other. This was afterwards rectified, and accounted for the second discrepancy. As an amendment, therefore, to *Mr. Cherry's* motion, which he considered a vote of censure on the gentlemen who had filled the office of

Treasurer, he begged to move that the Council proceed to act on Bye-law 47, which had not yet been acted upon, and appoint a permanent Finance Committee.

*Mr. Burley* seconded the motion.

*Mr. Braby* thought there would be constant necessity for fresh explanations, if the accounts were not made to explain themselves.

*Mr. Cherry* did not object to a finance committee, but wished the present inaccuracies to be cleared away previous to its appointment.

*Mr. Wilkinson* asked whether the Committee contemplated by the amendment would be prospective or retrospective, and with a view of looking into the whole of the accounts.

*The Secretary* said it was most desirable that the whole of the accounts should be most strictly investigated, and the doing so would be the first duty of the Committee; and the correction of any errors that might have crept in, once made, the future duties of the committee would be light and regular.

*Mr. A. Cherry* thought that a committee should be appointed for the specific purpose of looking into the accounts about which a question had been raised.

*The Secretary* repeated that it would cast a reflection upon the gentlemen who had filled the office of Treasurer.

After some further discussion,

*The Chairman* put the Secretary's amendment, which he declared carried.

*Mr. Cherry* said he should bring forward his motion again.

#### REGISTRAR'S REPORT.

*The Registrar* reported that 43 members had been admitted since the last Report, making 474 since the obtainment of the Charter. No deaths had been reported during the quarter.

On the motion of *Mr. Nice*, seconded by *Mr. Burley*, £20 was ordered to be advanced to the Secretary on the petty cash account.

The cheques for current expenses were then ordered to be drawn.

*Professors Simonds* and *Morton*, whose notices of motion were on the paper, not being present, they were postponed.

*Messrs Silvester, King*, and the *Secretary*, having been named as the Committee of supervision, the proceedings terminated.

F. R. SILVESTER,  
FRANCIS KING,  
E. N. GABRIEL.



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ON THE MANUFACTURE OF HORSE-SHOES.

By J. T. HODGSON, V.S.

THERE are three methods of manufacturing horse-shoes—forging by hand labour; forging by machinery; casting and cementation. The first is the common practice, and, with those who follow the trade of shoeing horses in towns, occupies but one sixth of the time of the workmen: the village-smith doing other iron-work.

The manufacture of horse-shoes belongs to the *trade* of hardware; the application of the shoes is veterinary surgery, having the physiology of the foot for its basis. In Asia, Africa, and South of Europe, where cold shoeing is practised, these arts are not connected; in other parts of Europe, and Great Britain in particular, they are combined; as well for the convenience of fitting the heavier shoes used, on larger horses, and finding constant employment for workmen, and, sometimes, for the advantage of superintendence by veterinary surgeons, for scientific shoeing of racers, hunters, chargers, riding horses, carriage horses, and lame horses, which is not carried out, when it is only followed in common practice, as a *trade*: shoeing horses used for agriculture and commerce, for which, in general, lower prices are charged for rougher workmanship; whereas, scientifically considered, cost should never regulate the manner in which horses should be shod. In every-day business, this attention to cost is, unfortunately for horses, unavoidable: therefore, those who are obliged to follow it, can never pretend that theirs is the best practice. They do their best for customers, no doubt: beyond this it is nonsense for them to dispute with other scientific shoers for superiority.

In Class xxii of the Great Exhibition, 1851, several horse-shoe manufacturers had honorable mention as such; not as shoers of horses, which was not admitted to competition, though it is the *criterion* of good shoeing, the good manufacture of horse-shoes being but the least important part.

The cost is of so much consideration, that, in the 'VETERINARIAN' for February, 1853, p. 70, there is memoranda of it; and in the 'VETERINARIAN' for April, 1852, p. 204, we read that M. Guerdon was quite confounded. He mistook "*it is worth nothing*," for national pride, instead of the pecuniary signification of the answer. He thought only of *scientific* farriery, aided by manual skill, about the *aplomb*, not of making a *plum* (£100,000). He would have shod a racer as wicked urchins do cats, with walnut shells. The winning such stakes as the Epsom Derby, £5425, and changing hands of one quarter of a million sterling, betting on events of a few days' races, are the reasons he saw English horse-shoes exhibited of various forms, as well as for the hunter, charger, &c.—uniformity never entering the heads of the exhibitors, but only how they could best carry on their particular branch of the horse-shoeing business.

"Tell me," said a gentleman, who had been a merchant, speaking on the slave trade in the House of Commons, "tell me the profits that are made in any trade, and I will tell you, if it can be put a stop to. How often have we heard in this house, that 30 per cent. profit keeps up the contraband trade." It is nonsense to say there is no profit in shoeing horses, in any situation, and with what is called a run of shoeing; it is always increased, though this may fall to the luck of few. But, to return to Class XXII, in the Report of the Jury, these words may be found. "The character of the contributions seems to indicate that British hardware manufacture is, at present, chiefly pre-eminent for excellence of workmanship and material, contrivance, ingenuity, mechanical skill, and other qualities which, *independent of taste*, give value to productions intended to supply the every day wants." "British hardware of the commoner sorts stands unrivalled in its variety, its utility, and excellence of workmanship, and in its adaptation to the wants and wishes of every class of purchasers." Inferiority is referred to "artistic ignorance of workmen"—"accurate modelling of the toes of a foot (foot of a horse for instance) is thrown away, if the workman, prepossessed with his peculiar notions of finish, is to be at liberty to obliterate toes before he can attain the degree of polish which he deems creditable and necessary." "This deficiency arises from a want of proper understanding between the designer and the parties who execute the work." The veterinary surgeon, fireman, and doorman, for instance.

"In an early stage of society, as indeed must always, to a great extent, be the case in the highest kinds of art, the artist and artificer, the designer and manufacturer, are the

same individuals"—the farrier, for instance, in shoeing horses. "This state of things though, on the whole, highly favorable to the influence of taste on works of industry, is incompatible with low prices, or (which is the same thing) with extensive production. In particular, the difficulty and tediousness of the manipulation of materials so unyielding as metallic substances, while they place a limit on production as it respects quantity, have a tendency to confine the character of the things produced to the two extremes of rudeness and elaboration. So long as the cheapness of an article was attained, not by increasing the mechanical facilities for its production, but by diminishing the amount of hand-labour bestowed upon it, metal working, so far as the mass of the people was concerned, could never extend itself beyond the few indispensable requisites of every day life; which, to be cheap enough, must be of the rudest description—such is the fact;" but why a shoe of the rudest description should have been selected for trial in the army, I am at a loss to imagine, knowing that farriers of troops, at home, have ample time even for elaboration, without additional cost, as in private forges. "Thus, every single production, on which labour beyond a certain indispensable amount was bestowed, partook more or less of the character of a specific work of art, identified with the producer as an artist, and reproducible only by a reiteration of the original process by the same or equally competent hands."

In this very predicament is the manufacture of horse-shoes by manual labour. "It is, at least, a fact, that while the application of ornament to many hardware manufactures has gradually become more extensive, and of a higher order, the character of the individuals employed in the workshops with respect to artistic intelligence, has not been proportionally elevated. They for the most part retain the ideas belonging to the primary, mechanical, and general *unartistic* condition of manufactures." Unfortunately, we but too often see the truth of these observations, not only in the manufacture of horse-shoes in ordinary use, but also in the common practice of the application to horse's feet. In the 'VETERINARIAN' for September, 1849, p. 500, the subject of artistic and unartistic practice is ably remarked on by Mr. A. Cherry, and in the same Journal for March, 1853, we read that the shoe in common use, the unartistic shoe, by Mr. A. Cherry "*condemned, and very properly so,*" for its rudeness, is ordered to have three months' trial.

The military authorities have begun at what the Report of the Juries denominate as the primary, mechanical, and gene-

rally unartistic manufacture of the horse-shoe: of course it was characteristic to begin with the awkward squad—in due time, we may see the trial of artistic manufactured shoes; indeed, we have much to expect from the experiences of military forges, knowing that, unlike private individual's forge enterprise, military forges are not, as the Jury remarks, "fettered by questions of economy in execution." Here, too, it cannot be artistic ignorance of the workmen. One exhibitor of artistic shoes belonged to the army, I believe, Mr. Guy, of whom honorable mention appears in the Report. Besides, the artists of the army (as well as artificers) are well known to the profession as authors, experimenters on the physiology of the foot, and, if not artificers themselves, practically know what is the *test* of good shoeing.

In regard to forging horse-shoes by machinery, the exhibitors have not excelled the first inventor, the late Mr. Morecroft: they do not go beyond uniformity, which is inapplicable to the wants of the public in shoeing horses in every-day practice; at present, the machinery, is *so far imperfect*, perhaps on account of the expense, to extensive production of the various forms in use. Dr. Hobson's patent machine (*vide* 'VETERINARIAN' for February, 1852,) turns out 150 to 200 shoes an hour; but, from the description, I suppose, only of substance fit for punching and alteration cold. The capabilities of the machine, as stated, "that the shape could be varied." Why has it not produced the various forms unartistic and artistic in common use? which only could cause extensive demand. Uniformity is of no use. The contract boxes for army use in former times were something like the Jew Goldner's meat: when opened they contained rough-made shoes, so uniform in shape and size, as to be very unfit for use, till fitted out; whereas shoes for army use on foreign service should require as little as possible, if any, alteration. Troop horses not only should have their sizes registered, but the form and kind of shoe required for each horse.

I thought it remiss of the representative of the late J. Percivall, Esq., Principal V.S. Royal Artillery, that his invention of the Patent Horse Sandal was not exhibited; also that of the cast-cemented horse-shoe, invented by the late W. Goodwin, Esq., V.S. to his late Majesty George the IVth, after the practical proofs of the utility of cast-cemented horse-shoes; because the object of the exhibition was to show what had already been done, as well as what was new. The use of cast-cemented shoes is prevented by the same cause as machine-made shoes, *uniformity*, the cost of modelling and casting the brass patterns of the various unartistic and



artistic forms in common use from which iron ones are cast being, in the first instance, expensive : yet, I believe, from experience, there is sufficient margin left for profit to any founder and steel manufacturer to undertake it : extensive production would repay it.

Veterinary surgeons should not, in my opinion, withdraw from their places any more than we would expect mechanical engineers to do so : they are the *artists* who should endeavour, by *improving the art* of the ordinary artisan, where they have an opportunity of doing so ; and machine-made and cast-cemented shoes offer not only facilities of producing artistic shoes of any form, but incalculable advantages, commercially considered. While we retain the unartistic ideas, "*habits, or work, or forms of our ancestors—the farriers,*" we shall never improve either the manufacture of horse-shoes for common use, or the artisan who applies these, who should know how to vary this, with different horses, and their uses.

Should the extracts and what I have written fail to convince, I recommend the reader to refer himself to the able Report of the Jury of Class XXII, part of which only I have thus, perhaps, but imperfectly given, solely with the view of showing how referable that Report is, in regard to the manufacture of horse-shoes, and the advancement of that branch of veterinary art, the fitting to the feet. If in utilizing either to suit the wants of the public in every-day life, or the exigencies of an army, either at home or on foreign service, we cannot carry out, in many cases, practices founded on the physiology of the foot, *i. e.* a concave ground surface, instead of the redundancy of a flat one, or the still more exuberant convex one of common English and French farriery, it is indeed to be regretted, as well for the horses as their owners and riders.

P. S. The foregoing remarks on cast-cemented shoes were written before p. 357 of this Journal was read. So far from such opposition detracting from the merit of this invention, it only enhanced it. Sooner or later, it will, notwithstanding, come into use ; for, as the Jury Report states,—“ If, then, the due adjustment of the *mechanical* and the *artistic* elements of perfection in manufacture, is a problem yet to be solved in this country, it is because the point of progress has not yet been reached at which its solution becomes possible ; if that solution has been postponed beyond what may appear a reasonable period, it is because the mechanical element, bringing with it new and unheard-of advantages, commercial and utilitarian, has been borne along on an overwhelming tide of success, and

carried beyond its proper bounds, closing up for the time, or obstructing more or less, the avenues to the influence of taste." For instance, in the 'VETERINARIAN' for November, 1852, Mr. Shaw "proposed bringing out a second edition of the Physiology of Expansion, early in spring." I hope the order for the trial of the unartistic mechanical shoe has not knocked the type into pie, thus "*closing up for the time, or obstructing, more or less, the avenues to the influence of taste for the artistic ones.*"

## DISEASE OF THE URETER AND BLADDER.

By GEORGE LEWIS, M.R.C.V.S. Monmouth.

DEAR SIR,—On the 6th ultimo I was requested to see a bullock, 2 years old, the property of a farmer, eight miles distant from this town.

SYMPTOMS:—Tail constantly erected; fæces of a very dark colour, harder than natural, and ejected in small quantities, and with a violent straining effort, with back greatly roached; has been losing flesh for some time past; does not feed well, especially when at grass, which food he abandons for hay. There is a continual dribbling of the urine, and when the animal urinates voluntarily the stream is much smaller than natural; urine of a very pale colour, and occasionally tinged with blood; pain is not evinced when pressure is applied over the region of the kidneys; rumination natural. There were no other objective symptoms which would indicate disease. The owner had imagined it to be a case of "gut tie," and I was sent for in consequence.

EXAMINATION.—On passing the hand up the rectum, within the left ureter a hard substance, about the size of a pullet's egg, could be felt, which appeared to give pain upon pressure being applied. Upon applying pressure to the bladder, only a small stream of urine could be produced; but upon this, as upon every other occasion, I could not succeed in emptying the bladder; upon its inferior-lateral portion, and near its neck, could be detected a hard substance; its neck also appeared to be much thickened. I now informed the owner that there was not any *acute* disease, although it was evident that there was an obstruction to the alimentary canal, and I believed also *actual disease* of the bladder, the symptoms of which indicated *calculus*, but that I could not speak *positively* as to its existence, not then being able to make the necessary examination; and that probably the symptoms

evinced in voiding the excrements, &c. was sympathetic action, produced by disease of the bladder, by the enlargement felt, or by both.

I ordered that the animal be housed, be kept upon nutritious food, and have daily, Potass. Iod., gr. x. Upon the 18th the owner came to inform me that he considered the animal better, though he still kept falling away. Upon the 27th I again saw it; I now informed the owner that I considered it to be a hopeless case, since it was very evident that some disorganisation had taken place.

I would here beg to observe that the enlargement first spoken of could not be felt, but that an enormous weight could be detected pressing upon the intestine; the act of urinating also causing great pain. The owner desired that I should have him to my infirmary, not with any hope of his being restored, but from its being in accordance with my wish. He was sent in. As urinating had now become so painful, I determined on relieving him, by cutting down in the perineum, &c., which I did. I then attempted to pass a small sound; but in this I could not succeed. I then passed a very *small human* catheter, and, ultimately, a small sound; but I could neither succeed in detecting a calculus nor in emptying the bladder. From this time until I had it destroyed, it urinated without so much pain or difficulty; though still the urine escaped involuntarily, both from the perineum and natural orifice.

AUTOPSY.—All the organs appeared healthy, except the urinary. Both kidneys were paler than natural; attached to the left kidney was a substance the size of the body of a man's hat, and full of extravasated urine. It proved to be a diseased ureter. Its weight, after the escape of the urine, was  $8\frac{1}{4}$  lbs.

The bladder contained about  $\bar{z}$ iv of matter, resembling pus, mixed with urine. Its neck was full of abnormal growths.

I herewith enclose a portion of its inner coat. Through its walls at this part its thickness was 1 inch and  $\frac{1}{8}$ th; through its fundus, natural; but its coats were diseased throughout. Its neck was 1 inch in thickness.

I am, dear Sir,

Yours truly.

\*.\* The portion of membrane sent appears to us to consist of fatty degeneration, rendered tough and leathery, internally, by interposed layers of fibro-cartilaginous material.—ED. VET.

## PROBABLE FRACTURE OF THE ILEUM.

By JAMES WESTERN, V.S. Madras Horse Artillery.

DEAR SIR,—Will you allow me to solicit your opinion on the following case, which is not without interest.

On the morning of the 7th current, I was requested to visit a horse that had suddenly fallen lame in a gallop on the race-course, where he was in training for our approaching meeting, and was too lame to be brought to me.

I found the horse in the rubbing-house. He is a chesnut arab, four years old, a recent purchase from a dealer's lot, and has a large curb on the off hock. The lameness is in the near hind leg, which is slightly resting on the toe; the pain is intense, evident by the testicle of that side being forcibly drawn up to the groin, accompanied by its incessant jactitation. The history of the case is simple:—until the present morning he had had no work faster than an ordinary canter, now, however, for about  $\frac{3}{4}$ ths of a mile he had his head, to go his own pace, with a steady pull upon him. Our *turn in* to the straight running is half a mile from home; he was pulled into a canter *before he rounded the corner*, and was *some distance up the straight running*, when his rider, Lt. G——t, Horse Artillery, felt him suddenly drop behind, “as if his hind legs were going from under him,” which he fancied was a failure of the curby hock. *I could find no cause for the lameness*, so determined on walking him to my hospital, no great distance. At first he would not put the lame leg to the ground, but in turning in the stall, absolutely made a pivot of the off hind foot; on first moving into a walk he did not touch the ground with the near hind, but after a few paces the foot came down, although there never was more than its own weight put upon it. I put the leg, up to the hock, in a bucket of warm water, and by woollen cloths wrapped round the thigh and carried over the loins and quarters, kept up a continued fomentation for four or five hours: having first, I should say, removed the shoe, examined the foot, which was sound, and administered a ball of Diuretic mass,  $\bar{z}j$ ; Ext. Belladonnæ,  $\bar{z}j$ . Up to a late hour of the afternoon, I was as much in the dark as ever as to the cause of lameness. I gave a full purgative. On the following morning Mr. Hurford, V.S. 15th Hussars, kindly joined me in a further examination. This was about 7 a.m., when, after a cool night, and a lapse of twenty hours since the accident, it was reasonably to be expected some signs of damage would be found. But no! from the middle of his hock down to his



toe, every part is as free from heat, or pain, or swelling, as ever it was; no pressure of the fingers applied, no pinching will produce the slightest flinching more than would a sound limb. The leg may be carried forward to the elbow or back to its fullest extent without pain, *but on abduction there is pain and resistance*. I as strictly as possible examined the bones of the pelvis, per rectum, but could find no fracture or sign of injury; one kidney could be reached, and bore considerable pressure from my hand; the bladder was partially distended; pressure over the region of the kidneys produced no effect. The lameness is still as great as ever; and again on turning in his stall he makes a pivot of the off hind foot; at a walk he is in precisely the same state as yesterday. The bowels are moving with the physic. I have no doubt he was purged, and he micturates quite freely. Constitutional irritation there is none, the pulse being 34 per minute, and he eats his grass as if nothing had occurred. The leg still rests upon the toe, therefore I have put on a shoe with high caulking, which gives a little elevation to the hock, and we both fancy there is also very slight elevation at the head of the femur; but this may be from the same cause, or from the lifting of the whole limb out of the way of a jar from the ground.

Mr. Hurford and myself agree in supposing it to be a fracture of the ilium, and flatter ourselves it will terminate in union and recovery.

Yours faithfully.

P.S.—I was anxious to say something about the rarity of curb in the arab, but have not time, as this is the last safe day for despatch of letters to catch the steamer at Madras. I have seen as faulty hocks in arabs as could be imagined in English or N. S. Wales horses, and yet, although this disease prevails in the latter, it is *very rare* in the former; indeed, during my whole service I have perhaps not met with a dozen.

BANGALORE; May 9, 1853.

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## GASTRO-ENTERITIS.

By WM. FURNIVALL, Pupil of Mr. B. CARTLEDGE, V. S., Sheffield.

TUESDAY, July 5th, an aged brown horse, which was broken-winded and low in condition, was seized with spasms of the bowels at 8 p.m. The owner gave him an antispasmodic draught, which afforded temporary relief. The pain, however, returned with increased severity, and at 2 a.m. our attendance

was requested. The more prominent symptoms then present were—a pulse numbering 84; extremities cold; and a clammy moisture bedewing the surface of the body. The mucous membranes were a little injected; a careworn condition of countenance; and anxious turnings of the head to the off side. The history given was, that the horse had performed his usual duties with spirit during the previous day, and that it was not until after eating his night feed that any pain became manifested.

The animal had voided healthy fæces after the attack; and, although the excitement seemed to be continuous, he had not lain down.

A draught composed of Sol. Aloës, Tr. Opii, Tr. Croton. and Sp. Æth. Nit. was given. Enemata thrown up. Ol. Canth. applied to abdomen, and blood withdrawn.

At half-past 7, there was considerable moisture on the surface of the body; the pulse still at 84; and the uneasiness not in any way abated. Give Tr. Opii, ʒiiss; Sp. Æth. Nit. ʒiiss, and employ the Tereb. Sol. Croton. with Olive Oil to the abdomen. Repeat enemata, and attend to the general comforts of the animal. An hour later, the pulse reached 92 beats in the minute, and the animal was suffering from uninterrupted pain.

Try a watery solution of opium, containing three drachms of that drug, and give also of Digitalis, Ant. P. Tart. of each a drachm and a half in ball. The opium was repeated shortly afterwards. Vesicants again applied to the whole extent of the abdomen, and enemata were also repeated. Late in the evening he was again seen, and from the fact of no change having occurred, and the blister producing no effect, the prognosis was unfavorable, and our opinion became decisive. The following morning, however, brought “new hopes,” and we were desirous of believing that our patient might yet recover. The pulse was lower in its number of beats, giving marked evidence of the action of the Digitalis, which it was deemed advisable to repeat, in conjunction with Sp. Æth. Nit., Liq. Am. Acet., and Tr. Opii.

For the first time there was an absence of pain, nor was this thought to be referable to sphacelus having set in. The blisters promised obedience. He had partaken of a little hay, drunk chilled water freely, and a fair amount of fæcal matter had been passed.

The bladder is in a state of excitement, urine being voided frequently and in small quantities, although the animal has never yet shown a disposition to lie down. At 11 p.m. he was much the same, and but little change occurred between that

hour and 10 o'clock the next day. Shortly after this, the pulse was ranging at about 84; the visible mucous membranes had changed to a leaden hue; the breathing was somewhat hurried; our patient walked round his box, and appeared in much pain. Repeat the watery solution of opium.

The skin covering the abdomen is under the action of the frequently applied counter-irritants, and is sensible to pressure. In the evening, the animal was suffering less pain, although the urine was voided frequently, and its passage caused much anxiety. The opium was repeated, and the general treatment continued; without, however, the most distant hope of an ultimate recovery. Twenty-four hours afterwards our patient died.

The post-mortem appearances were—General and excessive inflammation of the lining membrane of the stomach and bowels, with the same appearances upon the inner surface of the bladder. The lungs were, in parts, inflamed, and their affection, which was *chronic*, was beautifully shown. They were too unusually large; a peculiarity which also was observable in the liver, in which organ there was much disease present.

MARKET STREET, SHEFFIELD;  
July 15, 1853.

## GENERAL DISEASE IN A MARE.

By R. COOKE, M.R.C.V.S., Erith.

SIR,—I regret to say I was prevented making an examination of the carcase of the animal, the leg of which I sent you; but the knacker informed me that both the abdominal and thoracic viscera were in a highly diseased condition. I must therefore be content to describe the symptoms of what I consider this somewhat strange case, which I was requested to see on June 2d. The mare was then prostrate in a field, unable to rise, appearing to have lost the use of her extremities, which were stretched out; respiration but little affected; eyes sensitive to light; a full pulse of 70. I bled largely, and administered the following draught:

R Decoc. Aloës, ℥v;  
Acid. Hydrocy. Sch., ℥ss;  
Mist. Camph., ℥x.

Whilst taking this, she had a severe convulsive fit; struggling violently; the eyes drawn back, and the legs going at a rapid rate. I directed one of the bystanders to throw some cold

water on the head, which seemed to relieve her; for after a few seconds, the paroxysm ceased, and she appeared better. I then applied a blister over the cranium, and stimulated the spine, and left her, with directions that she be watched, and occasionally turned over.

*June 3d.* She has had two fits since I last saw her; symptoms of which were much the same as yesterday, but having rather more use of the legs. Having had no action in the bowels, I examined the rectum, and withdrew a quantity of fæces; the bladder at the same time contracting, discharged an immense quantity of urine. Repeat the draught without the Decoc. Aloës. The act of taking it brought on another fit, but not so intense as the former: contractions not so strong, and lasting less time. Appetite returning, having nipped the grass around the place where she is lying, and eaten some vetches. Bowels acting. She has been attempting to get up, and, by some assistance, she has managed to rise on her legs, which are stretched out like props underneath her. After some little time, she was able to hobble a short distance, to a loose box which had been prepared for her; she having been hitherto in the field, the weather fortunately proving fine. Here, with the aid of a little medicine and much nursing, she daily improved, regaining her appetite, and also the use of her stiff legs, and was now able to rise when down without assistance.

At the expiration of a week or ten days she had so far recovered, that she was turned into a paddock, with some companions of her own age, and it was surprising to see how she would gambol and play about, seeming in no way to suffer from her late illness. I now lost sight of her until June 21st, when I was again summoned, she being reported lame in the off fore-leg, in which, on examining, I found swelling of the fetlock, with a tumour above, evidently containing fluid. I plunged in a lancet, and gave exit to a quantity of sero-purulent matter. I then had her taken back to her box, and gave physic, with lotion to the limb, &c. The lameness after a time subsided, and all appeared going on favorably, though the abscess seemed indisposed to heal, and contained spongy kind of granulations. However, on visiting on the morning of June 28th, I found her halting on the opposite leg, with tumefaction from the fetlock upwards, but no pitting on pressure, or any particular pain. This was subdued by fomentation, physic, &c., but terminated, after a few days, in an abscess under the arm. No sooner, however, had she recovered this, than the disease flew back to the fetlock of the off-leg, being the seat of the prior attack; and here it seemed



to settle, causing severe lameness, and great constitutional disturbance; so much so, that after a few days suffering, she succumbed.

I was informed that this animal had shown symptoms of *strangles* about two months before her death; but in such a mild or irregular manner, that my assistance was considered unnecessary. How far this might act as a cause, I am not prepared to say; but should be glad to hear your opinion, with some remarks on the morbid limb, and you will oblige,  
Yours, &c.

\* \* \* The above case seems not undeserving of the appellation of *general*, or anomalous disease, seeing that both the thoracic and abdominal viscera, with the brain and locomotive apparatus, were all more or less affected. And there appears reason for thinking that it might have taken its rise in *retro-cedent strangles*. In the leg sent us, the principal seats appear to be suspensory ligament and bursal structures between this ligament and the perforans tendon, immediately over the joint of the fetlock, which likewise participates in it. Also, above the joint, between the ligament and tendon. The synovial tissues appear to have been invaded by ulceration, which, we should say, might prove a sequel of rheumatic disorder. But, in truth, the limb was received by us (at Windsor) in so far an advanced stage of putrescence that its morbid changes were described but with difficulty and uncertainty. Nevertheless, Mr. Cooke will accept our thanks for it.—ED. VET.

## VETERINARY JURISPRUDENCE.

### HORSE WARRANTY.—EXTRAORDINARY CASE.

*Edwin Brooke v. Mathew Martin.*

THE plaintiff in this action was a corn dealer, at Castle Cary, and the defendant a well-known and substantial yeoman, residing in the neighbourhood. The case excited considerable interest.

*Mr. Fear* (Garland and Fear), who was instructed by Mr. Arnold of Castle Cary, appeared for the plaintiff, and *Mr. Jillard* for the defendant.

*Mr. Fear*, in stating the case for the plaintiff, observed that the action was brought to recover the sum of £13 15s. 6d.—damage sustained by the plaintiff, in consequence of the unsoundness of a horse purchased by him of the defendant.

The horse was purchased on the 14th of May for £40; on the 16th it was sent home. On the 18th, the horse was sent to Binegar fair to be sold; it was not sold, but was afterwards disposed of to the brother of the plaintiff, Mr. William Brooke, who lives at Hambrook, near Bristol. It was sent to Fisher's Repository, and was there examined by Mr. Nathaniel Leigh an experienced veterinary surgeon, who pronounced it to be unsound. It was subsequently examined by Mr. Sidney James, another veterinary surgeon, who again pronounced it to be unsound. On the 9th of June notice of the unsoundness was served upon the defendant. The horse was sold at the Repository for £32, and the plaintiff now sought to recover the balance, together with the expenses to which he had been put.

The following comprises the *professional* evidence elicited during the trial:

Nathaniel Leigh.—I am a veterinary surgeon, at the horse Repository there. I have been in practice about fifteen years. I recollect this horse being sent to our Repository for my inspection and examination on May 31st. I examined the horse, and I thought him a very unsound horse, from diseased fore-feet, and enlargement of the inside of the hock, termed bone-spavin. The disease in the fore-feet was contraction, and that caused the horse to be lame. The horse was very unsound. I should call it a chronic disease of many months' standing; twelve months it may be. I have no doubt it could not have come on after the 14th of May. In my opinion the value of this horse, if it went in harness, was about £20. For riding I should say it was valueless. It appeared to me to be a bad-tempered horse, from what I saw of him when he was with us. He remained there about ten days before he was sold.

Cross-examined.—The disease was very perceptible in both hocks. Both hocks were enlarged.

The following certificate was then read by *Mr. Jillard*:

"August 31st, 1853, Repository Mart, College Street, Bristol. Examination of bay horse for Mr. Brooke. I, Nathaniel Leigh, veterinary surgeon, have this day examined a bay horse for Mr. Brooke, and pronounced the horse to be unsound from *cusion* (contraction) of the fore-feet: he has also an enlargement on the inside of the hocks termed bone-spavin, the near hock in particular.

"NATHANIEL LEIGH, Veterinary Surgeon."

The word "*cusion*" was explained to be a clerical error. It should have been contraction.

The Judge.—How do you suppose that contraction was brought on?

Witness.—By hard riding in breaking. I don't believe shoeing would produce that disease.

By *Mr. Jillard*.—There may have been a difference of opinion as to whether the horse was lame in both fore-feet or not.

Sydney James.—I am a veterinary surgeon, and have passed the college. In June last I examined the horse at the Repository. I found him very lame in both fore-feet. I should suppose it was of long standing and produced by hard riding. It was a chronic disease. The feet were in a diseased state, very hot and feverish—I mean inflammation of the feet and contraction. There was a slight enlargement of the near hock inside; that is termed bone-spavin. I only observed it upon one. The horse was walked and trotted in my presence. He went very lame, when trotted, but did not show very much of it when he walked. That horse was an unsound one.

The Judge.—Was it capable of cure?

Witness.—I should suppose not;—not a permanent cure.

Cross-examined.—I gave a certificate.—In that certificate I don't say anything about the hock. I gave a certificate to show that the horse was lame in both fore-feet, and that was sufficient to prove unsoundness. There was a very slight enlargement of the near hock, but not sufficient to cause lameness. I have practised some years and was admitted into the college in May last.

The certificate given by Mr. James was as follows:

"June 9th, 1853. The bay gelding submitted to me for examination by Mr. Brooke, is lame from inflammation existing in both the fore-feet, consequently unsound.

"I am, Sir, yours obediently,

"SYDNEY JAMES, M.R.C.V.S."

This was the case for the plaintiff.

*Mr. Jillard* then addressed the *Court* for the defence. He observed that he should call before the court a number of witnesses of the highest respectability. Mr. Martin who bred the horse, would prove that he gave no warranty, and that the horse was perfectly sound. The evidence given by Moores had no foundation whatever; it was a trumped-up story. He should introduce into the box a young lady who would corroborate her uncle's statement, and would prove that her uncle and the plaintiff were in company for two hours, and that during that time she did not leave the room for one quarter of a minute. Then he should call an eminent veterinary surgeon who examined the horse, and would prove that on the 3d and 9th of June, the horse was perfectly sound; and lastly, he should adduce the testimony of the

gentleman in whose possession the horse was now, to prove that the horse was sound then, and continues so at the present moment.

Mr. John Kent, veterinary surgeon, of Bristol, was then examined and said—I have had my certificate or diploma forty-one years. My business, as a veterinary surgeon, is the most extensive of any one in Bristol. I made an examination of the horse in question on the 3d of June. I examined the horse first at the Repository, and then had him taken to my own forge. I examined him very particularly in every respect, and gave the following certificate:

“ Having, at the request of Mr. William Plummer, examined a bay five-years-old horse, with special reference to his hocks and fore-feet; this is to certify, that his hocks and fore-feet are good, and perfectly free from disease and effect, and free from impeded action, and that the horse is sound.

“ Given under my hand, this 3d day of June, 1853.

“ JOHN KENT, Veterinary Surgeon, Bristol.”

*Mr. Jillard.*—Mr. Kent, did you examine the horse's feet very particularly?

Mr. Kent.—I did examine the horse's feet very particularly, and I am certain that the horse was perfectly free from lameness. I examined his fore legs and feet and am certain that there was no enlargement of either bones, joints, ligaments, or tendons—that there was neither lameness nor impeded action. I had his shoes taken off in order to make a thorough examination. The hoofs and soles of both fore-feet were natural and healthy, there was neither sandcrack, corn, nor thrush, nor defect of any kind in either hoofs or soles; there was no inflammation or unnatural heat in the feet. I saw the horse trotted on pitching and hard road; I hammered his shoes when on, and his hoofs and soles when the shoes were off, and am certain that there was neither pain nor inflammation in his feet. I also examined very particularly his hocks and hind extremities; there was neither enlargement nor impeded action in the hocks, their structure was natural and action perfect. The horse was not a roarer, and was in every respect sound. I saw him several times, to ascertain whether he pointed his feet in the stable, or moved them alternately as indicative of pain, knowing that when disease is going on in the feet, whether it be ossific (bony) or inflammatory, the horse will be restless, moving his feet alternately, clearly indicating pain in the feet. At various times I watched the horse, in the whole, I believe, for more than two hours, and by that means I am certain that the horse was free from pain or lameness in his feet.



By the Court.—But Mr. Kent, might there not have been inflammation and congestion in the feet at a previous time, and that inflammation have subsided and left its consequences behind?

Mr. Kent.—No. If inflammation of the laminæ and sensible sole (frequently called fever in the feet) had at any previous time existed, the action of the horse would have indicated that by the putting down of his feet and stepping on his heels in action, and the falling in of the sides or quarters of the hoofs, and also by the state of the soles of the feet, but the action of that horse was free from any defect or impediment arising from disease.

Mr. Jillard.—You had heard the evidence of “the renowned veterinary surgeon,” Mr. Leigh—have you ever had occasion to differ from him in opinion on a case?

Mr. Kent.—I should not like to say anything invidious against Mr. Leigh. I have seen Mr. Leigh contradict himself. I have heard him assert that a horse had corns, and when the shoes were taken off it was found that he had no corns.

Mr. Jillard.—You have heard the evidence of Mr. James.

Mr. Kent.—He is only a young man; I have nothing to say about his evidence.

The Judge stopped the case, observing that he could not find for the plaintiff after hearing the evidence of Mr. Kent. He had handled every part of the subject in a masterly way, and anticipated all the questions that were likely to arise in cross-examination.

Mr. Fear.—I feel that under the circumstances it would be a perfect waste of time to go on with the case.

The Judge.—I could not say that up to this time my verdict would not have been for the plaintiff.

Mr. Fear wished to call Mr. Leigh to ask him whether he had contradicted himself as stated by Mr. Kent?

Mr. Kent.—I am ready to give you names and dates and to enter into all particulars.

Mr. Leigh was called but he had left the Court, and was *non est inventus*.

The Judge observed that he thought Mr. Fear had an extraordinary good case when he had concluded the evidence for the plaintiff; but he had experience enough to withhold his opinion until he had heard the other side.

Mr. Jillard expressed a wish to call another witness, to show that the horse was perfectly sound at the present time.

Mr. Matthew Martin, of Lower Penington Farm, near  
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Lymington, Hants, then stated that he purchased the horse at the bazaar for £32, and had it now in his possession. He had ridden him occasionally and driven him regularly, and used him in the plough, and had never found him have the slightest lameness.

The verdict was then given for the defendant.

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DOWNPATRICK ASSIZES, SATURDAY, JULY 23.

(Before Sergeant Howley.)

*Magennis v. Hunter.*

*Mr. Perrin* opened the pleadings. This was an action of *assumpsit*, for a breach of warranty in a horse sold by the defendant to the plaintiff. The declaration contained four counts. Damages were laid at £1000, and defendant pleaded the general issue.

*Mr. Andrews, Q.C.*, stated the case. The plaintiff in this case was a gentleman named Roger Magennis, and the defendant a gentleman, named James Hunter, both of whom resided in the county of Down, and were persons of considerable respectability. The plaintiff was a magistrate, living at a place called Ballela, and he and the defendant had been on intimate terms with each other; but, unfortunately, he came now into Court to claim damages for what was called a "breach of warranty" in the sale of a horse. The sale was in the nature of an exchange, giving the difference, and took place at the June fair of Banbridge, in 1852. *Mr. Andrews* then described the terms of the sale, which will fully appear in the evidence; and proceeded to say that, the day after the bargain, *Mr. Magennis's* servant discovered, on examining the horse, a number of pimples between his legs and a lump on the breast. On the following day, other lumps made their appearance on the off-side of the neck, and subsequently more were seen. The horse became very unwell, and it was found he had *button farcy*, which ultimately turned into glanders, of which he died. Four other horses which *Mr. Magennis* had, subsequently took glanders, and he was obliged to shoot them. But his loss did not end there. He was also obliged to destroy a considerable quantity of harness, as it could not again be used; besides other losses which it was now unnecessary for him (*Mr. Andrews*) to mention. *Mr. Andrews* concluded by saying that the only question which the jury would have to determine were, whether there was a warranty

given with the horse, and whether there was a breach of that warranty on the part of the defendant.

His Lordship observed, that it appeared to him to be a mere question of fact, and not one of law, which the jury would have to determine.

Mr. Roger Magennis, the plaintiff, was then called, and examined by *Mr. O'Hagan, Q.C.*—He stated that he attended the fair of Banbridge, on the 9th of June, 1852, where he saw Mr. Arthur Aiken, who told him that Mr. Hunter, the defendant, had a horse to sell, and invited him to go and see him; he accordingly went to the yard where the horse was, and examined him, but objected to the smallness of his legs, and to a splint being in one of them; in a subsequent part of the day, he saw Mr. Aiken, Mr. John Hamill, and Mr. Hunter, the defendant, together; Mr. Hunter, or one of the party, asked him had he sold his pony which he had with him in the fair, and he replied he had not, as he had not offered it for sale; and he immediately after asked him would he (Mr. Magennis) make an exchange for the horse; he told him he had no objection, provided they agreed about the difference; and then asked him to tell him what sum he would take with the pony in exchange for the horse; Mr. Hunter said he did not know, and asked Mr. Hamill to name the sum; Mr. Hamill observed that, as he (Mr. Magennis) and Mr. Hunter were both gentlemen, they should be allowed to make their own bargain, believing, as he did, that neither of them wished to take any advantage of the other; he (Mr. Magennis) replied, that he had never taken any person “in” in his life, and that he had no wish to “take in” Mr. Hunter: he said, at the same time, that his (Mr. Magennis's) pony had no fault but one, and that was, that it would come home better than it would leave home; Mr. Hamill asked him would he engage the pony to be sound, and he replied that it was sound, but that they might get it examined by a Veterinary Surgeon, if they liked; Mr. Aiken told him that the horse had been purchased from Mr. Samuel Walker, of Tullygirvan; that he was got by “Irish Birdcatcher;” and that, on his being bought from Mr. Walker, he was examined by Mr. Grogan, Veterinary Surgeon, Belfast, all sound, with the exception of a small splint in one of his legs; said if he was all right except the splint, he would make no objection to that; Mr. Hunter stated that, so far as he was concerned, he wished to have everything straightforward and fair in the bargain; that he would be sorry to take him (Mr. Magennis) “in,” and that his horse was all right, and there was nothing wrong with him; he asked him then to

name the sum he would take with the pony for the horse; and he said £25, but considering that too much, he offered him £20; Mr. Hamill told him (Mr. Magennis) to divide the difference, but he at first refused to do so; ultimately, however, he and Mr. Aiken tossed up for the price, but he (Mr. Magennis) lost, and paid £22 10s. with the pony for the horse; he took the horse home that evening; next day he saw a number of pimples between his legs; he appeared like a horse that had been hunting, and jagged with thorns; there was also a hard lump under the shoulder, about the size of a crown piece, and on the off-side of the neck; in five or six days after, other lumps started up on the neck; the first lump he saw broke about ten days after its appearance, and from it there was a slight discharge; the horse never laid down, and appeared uneasy; about ten days after the purchase, he also became lame, and discharged slimy and corrupted stuff from his bowels. Mr. Grogan, Veterinary Surgeon, was sent for, and he came and lanced the lumps; the horse ultimately died on the first week in September; four other horses, which he had at the time, subsequently took glanders, and had to be shot; before he purchased Mr. Hunter's horse he never had a glandered horse in his stables; he had an old horse that died with him some time before the Banbridge fair of June, 1852, but it was not of glanders; he estimated the value of the four horses which he shot, and the harness which he destroyed, at £200: the horses, independent of the harness, were valued for £150; since that time he was afraid to put any of his horses in the stables, lest they might get the disease; he afterwards spoke to Mr. Hamill about the horse, and also wrote to Mr. Hunter on the subject, after the horse died.

Mr. King, Veterinary Surgeon, examined by *Mr. Andrews, Q.C.*—He had been in court during the examination of the various witnesses, and he had heard them describing the sickness of the horse; from the nature of the symptoms, he had no hesitation in saying that the horse was affected with button farcy, that disease had tendency to turn into glanders; as far as he knew of the case, he could not take it upon him to say that the horse in question died of glanders; the symptoms of the dimples and lumps that had been described showed that the horse was decidedly unsound; *button farcy was infectious, but not contagious*; it was a disease synonymous with glanders.

In cross-examination by *Mr. Moore, Q.C.*, he stated that the characteristic symptoms of glanders were an enlargement of the glands of the lower part of the throat, and ulceration of



the nose; button farcy, if taken early, might be cured; neglected cold, or injudicious treatment, would result in glanders; it was prejudicial to ride a horse having such symptoms as had been described.

Mr. Small, Veterinary Surgeon, examined by *Mr. O'Hagan*.—Is a licentiate of the Royal Veterinary College of London; has heard the evidence respecting the cause of the horse's death; from the symptoms described the case must have been one of button farcy, which, in the natural course of the disease, ended in glanders; the pimples and lumps described to have been noticed on the inside of the hind leg and along the neck, which subsequently suppurated and became running sores, were what is commonly termed buttons or buds, from which the disease derives its name; the seeds of the disease must have existed in the animal the day before, probably several days, possibly a week before the buds assumed the appearance described; weakness is not a consequence of this disease, but very often a cause; debility, whether arising from oppression of overwork, or the consequence of any disease, will cause farcy and glanders; *it is not an infectious disease at all, nor is it contagious until the farcy bud suppurates*; it is only the matter that issues from the sore can produce the disease in another horse; only by inoculation—by the introduction of the virus into the system of another animal, by its absorption through an abraded surface, that the disease can be communicated; a horse standing in the same stable with a patient in button farcy that had not arrived at the stage of suppuration, would not catch the disease; is quite sure of that; farcy often ends in glanders; no horse ever dies of button farcy, if he is not cured, he will die glandered; glanders is not infectious, it is only contagious, it can only be communicated by inoculation or absorption of the virus; stables are often infected; has heard it said that for years the infection will remain in a stall; remembers one instance of a horse becoming glandered that was left in a loose box, in which two years before a horse had died of glanders; in that case the virus must have lived upon the timber or walls of the stables; such is not my opinion; button farcy is a serious unsoundness in a horse.

Cross-examined by *Mr. Meade*.—The pimples or buds would take two or three days at least to appear externally, after the disease had existence in the blood and system of the animal, whether the cause was oppression or contagion; the poison may be in the constitution probably a week before a common observer would notice or recognise the disease by any external symptoms; there is always great difficulty in curing farcy; has great experience of this disease; has seen thou-

sands of cases of it in twenty-five years' practice; does not think that more than one case in five is cured, in any stage of the disease, and under the most judicious treatment.

To the Court.—There are two diseases vulgarly called farcy—viz. water farcy and button farcy; they are entirely different in their nature; the former is easily cured; the latter often baffles the best skill in veterinary science.

To a Juror.—Does not think glanders can be cured; has heard of horses being cured of glanders; has cured horses of diseases very much resembling glanders; has known horses ordered to be destroyed as glandered, cured of the disease; it was not glanders at all; never knew a horse ulcerated in the (septum) partition of the nostrils, having the other symptoms of chronic glanders, cured.

The case for the plaintiff then closed.

*Mr. Joy*, Q.C., then proceeded to address the jury on behalf of the defendant. The plaintiff, he said, had closed his case, without having told them any more about the old grey horse that had died in his stables about a month before he purchased the horse from the defendant; but he (*Mr. Joy*) suspected there was more about the horse than had been stated. Why was not that horse skinned? That was a singular fact, but no person had been called to tell them anything about it. *Mr. Joy* then went on to say, he was sure every man on the jury regretted that two gentlemen, like the plaintiff and defendant, were placed in a hostile position to each other in a court of law, and that was the more to be regretted, that *Mr. Aiken* was the mutual friend of both, and would undoubtedly have been produced as witness by the defendant, had he not been called on the part of the plaintiff. *Mr. Joy* then said, that before he went further in the case, he submitted that the defendant was entitled to a non-suit in point of law, because the declaration stated that the horse was warranted, whereas the evidence, at the very utmost, only showed that *Mr. Hunter* said that the horse was only either sound, or was all right, as far as he knew.

His Lordship thought there was a sufficient case to go to the jury; but said he would take a note of the objection.

*Mr. Joy* then proceeded with his address. He hoped that, whatever would be the result of the present case, no permanent interruption of the kindly feelings which had always subsisted between the plaintiff and the defendant would take place. The position in which *Mr. Hunter* was in the present action, was different from that of *Mr. Magennis*. It was open for *Mr. Magennis* to institute legal proceedings against the defendant at any time he pleased. If he had been under

the apprehension, at first, that the horse had been warranted to him, he (Mr. Joy) could well understand the course he would likely have adopted. He would have communicated at once with Mr. Hunter about the illness of the horse and the warranty; but, instead of giving him an opportunity of ascertaining, in time, the actual condition of the horse, whether he had been judiciously treated or not, and so forth, they found him, three months after the horse had died, intimating his determination to take hostile proceedings against Mr. Hunter. Mr. Joy then went on to contend that no warranty had been given to Mr. Hunter, and that the horse was perfectly sound when he was sold to the plaintiff.

*Mr. John Lindsay* examined.—Is father-in-law to Mr. Hunter; remembers the horse in question being brought to his stables on the night before the fair of Banbridge; he stood in a two-stall stable with another horse; he appeared in perfect health and spirits; had a conversation with plaintiff in the August fair of Banbridge, who said that the horse he bought from Mr. Hunter had the button farcy when he got him, as a spot came on his neck a day or two after, on a part a little lower than the place where horses are usually bled, and that when he rubbed the scab off it ran matter; after a few weeks again met plaintiff at Banbridge, when he intimated his intention to enter an action, and said that *although there was no warranty on either side it would make no difference*, meaning as regards his right to recover damages from my son-in-law; the horse that stood in the same stable with this horse on the night before the fair is not infected by him; he is in perfect health.

*Mr. James Hunter*, the defendant, was then examined by Mr. Meade.—He deposed to the purchase of the horse from Mr. Walker, to his having ploughed with him occasionally, and to his having been, at various times, in the same stable with other horses, without any disease having resulted from the communication. He then described the terms of the sale at Banbridge. He said he told Mr. Magennis that he gave the horse to him as sound; that he had been passed to him as sound; and he now added that he believed he was sound when the sale was completed; there was nothing further said by him about the soundness of the horse; he (Mr. Hunter) sold the pony, three or four days after the exchange, for £9; it did not appear all right to him, because its knees were broken before he got it from Mr. Magennis, and it was so footless he would not ride it.

*Mr. O'Hagan*.—I suppose you intend that a sort of set-off against the horse.

*Mr. Meade.*—No; it is merely to show that Mr. Magennis's recollection is not very perfect in the matter.

In cross-examination by *Mr. O'Hagan, Q.C.*, Mr. Hunter said he did not think he escaped an injury by getting rid of the horse; Mr. Magennis did not tell him the pony was a bad roadster; he only said it came home better than it left; he did not understand that to mean it was a bad roadster; he gave Mr. Magennis no engagement with the horse; when purchasing him from Mr. Walker he got an engagement with him; he had heard of glanders in the County Down, and that one horse had been glandered at Mr. Walker's; he had also heard of a man having died of that disease; he believed the horse was perfectly sound when he took him to Banbridge fair; in fact, he had not the slightest doubt on the subject; he would have told any man that he was sound; Mr. Magennis, he believed, was asked by Mr. Hamill, before the sale was concluded, whether or not the pony was sound, but he did not hear him say it was sound; his recollection was clear on that matter, he was sure he did not say it; he did not mention the word "warranty," in regard to the horse, nor did he say "the horse is all right," but he used words to the same effect; he did not say to Mr. Magennis, "the horse is all right, there is nothing wrong with him as far as I know;" he said nothing but what he had already stated; Mr. Hamill mentioned to him (Mr. Hunter) that Magennis had told him that the horse had button farcy; Mr. Lindsay also told him something about the matter; he received a letter on the 20th September, from Mr. Magennis, complaining of the loss of the horse, but he did not reply to it; he also got a letter from him, dated the 14th of October, and he did not reply to it either, because he wanted first to see Mr. Aiken on the subject; both Mr. Hamill and Mr. Aiken advised him not to answer that letter; he also received a letter on the 18th of December, written by Mr. Stephenson, Solicitor, of Lisburn.

*Mr. Joy* then read, and handed in the letters in question, after which,

*Mr. O'Hagan, Q.C.*, in a lengthened and eloquent address, replied on the part of the plaintiff.

*His Lordship* then charged, and the Jury, after deliberating for a few hours, returned a verdict for the plaintiff, of £31 damages and 6d. costs.—*From the Armagh 'Sporting Chronicle,' August 1, 1853.*



## COUNTY COURT, BRADFORD.

*Kaye v. Parkinson.*

On last Assize, before John Hammerton, Esq. (deputy judge), a disputed case of the soundness of a horse came on for trial.

The plaintiff, who is a butcher, residing in Little Horton, was represented by *Mr. Terry*; and the defendant by *Mr. Mitchell*, of Halifax.

*Mr. Terry* opened the case with a statement of the facts he proposed to establish, and, amongst other things, explained to the jury that this was a new trial obtained at the instance of the defendant. He also stated that it was admitted there was a warranty at the time the mare was sold by the defendant to the plaintiff; and he believed the only question for them to inquire into would be, whether or not, on the 3d of January, 1853, the time when the sale took place, any unsoundness existed in that mare.

He called George Kaye, who said he bought the mare, and obtained a warranty with her, on the 3d of January this year. He saw something was the matter with her in two or three weeks after. In about ten days after, he saw the defendant, and told him the mare was lame, and that the defendant then told him to keep her a bit longer, and if she did not mend, he (the defendant) would take her back. He sold her by auction, after having given proper notices to the defendant. His loss was £13 8s. 6d. On cross-examination, he stated that he kept the mare ten days to see if she got worse. She was not worked to his knowledge during those ten days; but his brother took care of her. When he bought her, the defendant told him he had given £25 for her. He did not meet the defendant in the market on the 8th of February; defendant did not say he would give me £28 for her back. He (witness) did not say he would take it.

John Spence, horse-dealer, Bradford, stated that he saw the mare on the 3d of January, at the Roebuck. He told the defendant she had an enlargement of the hock. It was a blood-spavin. Being cross-examined, he said a blood-spavin could not be put out in twenty-four hours. It was in the evening he saw her, but it was light enough for him to see her bad leg.

John Kaye, brother of the plaintiff, spoke to the fact of the mare having been used carefully. Other witnesses spoke as to the mare having an enlargement on her hock, called a bog-spavin.

Mr. Joseph Carter, Veterinary Surgeon, Bradford, stated that he saw the mare on the 28th of February; found a ringbone and a bog-spavin. Ringbones vary both in form and size. He noticed the size of that. It could not have arrived at the advanced stage it was in less than three or four months. The bog-spavin must have existed three months.

Other evidence having been given, nearly to the same effect, by Mr. John Morville, Veterinary Surgeon, of Wakefield, and Mr. Edward Yates, of Leeds, who had examined the mare to-day,

*Mr. Mitchell* addressed the jury, contending that there was no unsoundness existing on the 3d of January, and then called James Parkinson, the defendant, who first gave an account of the sale to the plaintiff, and then of a conversation he had with the plaintiff and a man of the name of Briggs in the early part of February, in which conversation he alleged that the plaintiff was well satisfied with the mare, and would not take less than £30 for her. He then gave an account of another conversation in a few days after, in which the plaintiff said he would make the defendant take the mare back. He then said, he saw the mare running away on the 14th of February; and some lads jerking her head. Part of a stick knocked about her legs might have caused the (so-called) bog-spavin. "I showed the mare at four fairs before I sold her to the plaintiff."

Joseph Oddy shod the mare about the 20th of December, before the sale, and saw no bog-spavin or ringbone.

John Wilson shod the mare after the auction sale, and found some tow in her foot, as if she had been bled for a sprain.

Mr. Thomas Haycock, Veterinary Surgeon, of Elland, had seen the mare to-day. She had an enlargement, caused by some injury. It was not of long standing. He saw no blemish in the mare.

Mr. Henry Wheatley, Veterinary Surgeon, of Halifax, had examined the mare on the 5th of April last. There was no ringbone. She had an enlargement of recent origin. It did not interfere with her action.

*Mr. Terry* then addressed the jury in reply, and the learned Judge summed up, when the jury retired for about ten minutes, and brought in a verdict for the plaintiff for the full amount claimed.—*Leeds Mercury*.

## Foreign Department.

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### ON THE RESULTS OF THE INOCULATION OF CATTLE FOR EPIZOOTIC PERI-PNEUMONIA.

*Report addressed to the Prussian Government,*

By Dr. C. ULRICH, Veterinarian of the Circle of Urietzen sur l'Oder; Professor at the Royal Academy of Mæglin.

ON the 26th of August, 1852, Dr. Ulrich, commissioned by his Government to go to Cologne, and into Belgium, to make observations, on the spot, of inoculations for peri-pneumonia, (or pleuro-pneumonia), arrived there on the 5th of September following, and immediately put himself in communication with Dr. Désaive, inoculator for the district of Cologne, and with the Provincial Veterinary Surgeon, M. Sticker, who being himself employed by the Prussian Government in the same pursuit with Désaive, assisted in the present investigations. Dr. Ulrich likewise was in communication with Dr. Willems at Hasselt, and with M. Verheyen, Director of the Royal Veterinary School at Brussels. His researches led him to the following conclusions:

1. It is an established fact that, in many stables wherein peri-pneumonia had raged for several years, as well as in others which had only been infected by it of late, the disease disappeared shortly after inoculation.

That, on the other hand, cases have occurred in which the disease has continued to rage after and in spite of inoculation.

2. In many cases of beasts dying afterwards of the disease, inoculation has not proved successful.

At the same time there exist examples to the contrary: animals with whom inoculation has quite succeeded, and yet for all that, they have become afterwards the subjects of the disease.

3. Cases have occurred wherein inoculation has proved without effect on beasts already in a state of convalescence from the disease.

And others have occurred wherein inoculation has proved equally successful, notwithstanding the subjects were in a state of convalescence.

Others again have presented themselves wherein inoculation has failed to take any effect on beasts, either before or after this operation.

The assertion of Dr. Willems, that inoculation takes no effect on calves, is not borne out by experience, since several calves have died after inoculation.

4. In many cases wherein inoculation had been practised on cattle recently purchased, and put in stables formerly infected but since purified, no fresh case of the disease has presented itself for three months after occupation.

5. No instance has come to our knowledge wherein inoculated animals placed in purified stables have become infected.

Nevertheless, a member of the Agricultural Association of Dusseldorf, has assured the members at a recent sitting, that inoculations made at Rheinberg had been attended with the results of propagating peri-pneumonia, which before was in that situation unknown.

6. In some isolated instances, animals not inoculated, standing by the side of others in the same stable, which were infected, caught the disease; while others who had been inoculated, were preserved from taking it.

7. Of 204 beasts inoculated by Dr. Désaive, 13 died of inoculation, viz., 6 per cent.; while in Belgium, of 189 inoculations made by the Central Commission, only 3 died, viz., 1 or  $1\frac{1}{2}$  per cent.

Of 1400 beasts Dr. Willems pretended to have inoculated, 12 died, less than 1 per cent.

Of 1200 inoculations by M. Manis, 22 deaths have followed, nearly 2 per cent.

In the majority of cases death ensued about the third or fourth week, though in some instances not until two months after inoculation.

8. Of the 191 head of cattle inoculated and cured by Dr. Désaive, about 30 have lost the whole or part of their tails.

No calculation has yet been made as to the proportion that have suffered in this way in Belgium; nevertheless it has been ascertained, in certain numbers of cases, that the loss of the tail has been in the ratio of 3 out of 11; 10 out of 22; 12 out of 50; 13 out of 51; and in one case, even all of 13 inoculated. Complete recovery has been generally tardy and difficult with many animals, occupying two months and a half, and even three months.

9. The assertion of Dr. Willems, that the beasts which had been inoculated fattened more readily and furnished more milk than others who had not undergone inoculation, appears to be confirmed by some distillers at Hasselt.

10. Four calves inoculated by the Belgian Commission fell victims to the articular cynovitis of calves, after inoculation; and the inoculation of a cow at the school at Brussels,



was followed by the eruption of a dartsous affection of an extensive character. Dr. Ulrich makes mention of these facts by way of record, without considering them absolute sequelæ of inoculation.

These various results springing from inoculation which have come to the knowledge of M. Ulrich, do not appear to be of a nature to permit him to pronounce definitively on the value of inoculation for peri-pneumonia, since by the side of facts in favour of it, come others militating against it; and especially since it has not yet been demonstratively shown that beasts inoculated and exposed to the natural contagion for a space of time, of sufficient and satisfactory length, have remained uncontaminated. To prove this, some direct experiment must be instituted.

Afterwards, Dr. Ulrich informs us that the Belgic Commission have already entered on this undertaking; and to settle the point, have instituted a series of direct experiments, and that similar experiments are about being made in Holland and in France. In France, he says, a committee well qualified for it, have taken up the question anew of the contagion of pleuro-pneumonia; since even up to this day has its contagious property been questioned in France, though fresh experiments have convinced them of it.

In regard to M. Willems' opinion about a beast who has once had the disease not being liable to it again, M. Ulrich thinks differently; and his opinion to the contrary is par-taken by M. Verheyen. M. Ulrich adds, that the well-authenticated facts of beasts having had the disease a second and even a third time are so numerous that we must consider before we regard them as exceptional instances.

M. Ulrich terminates his account with some notice of the dispute between M. Désaive and M. Willems, as to the priority of discovery. M. Lombond, of the University of Liege, has assured M. Verheyen that he was made acquainted with a single inoculation made by M. Désaive so long ago as 1836. Still, in regard to Dr. Willems, from whom the first intimation of the business comes to us, in December, 1850, it does not appear that he received any intimation of the fact from anybody. At all events, he has the full merit of having persevered in and followed up his operations, collecting a series of facts to which, by the notice he gave of them to the Minister of the Interior, he has called the attention and interest of the public.—*Réc. de Méd. Vét., April, 1853.*

## OBSERVATIONS ON METEORISATION IN THE HORSE.

## PUNCTURE OF THE CÆCUM.—CURE.

A light harness gelding, 7 years old, after having eaten a good allowance of oats and bran, was employed to draw a load of dung from Paris to Creteil. He had no sooner arrived when he was attacked with violent colics; his belly became rapidly blown out, when, in consequence of suffocation being threatened, the carter immediately brought him to the veterinary school.

On his arrival his respiration was highly accelerated; nostrils dilated, countenance anxious; flank so blown out that the process of the ileum is almost effaced; pulse very small, quick, and wiry; &c. Rectal exploration discovered that the large intestines contained but little solid matter, but were mostly distended with gas. From time to time the animal made violent expulsive efforts, and when left to himself he lies down and rolls, &c.

DIAGNOSTIC.—Meteorisation consecutive on indigestion.

PRESCRIPTION.—V.S.; continual walking exercise; simple clysters; drink of assafoetida 15 grammes (about  $\text{፬iv}$ ), with a like quantity of camphor. No relief being afforded in an hour afterwards, a drink of aloetic oil, composed of a pint and a half of oil with 10 grammes (about  $\text{3j}$ ) of Barbadoes aloes.

Two hours after the administration of this drink there had been no evacuation of either solid or gaseous matter from the anus. The pulse had become small and depressed; the skin cold; the respiration anxious, sighing, and short. Asphyxia threatening, the indication is, if we would prevent it, and so save the animal, we must do something instantly. Puncture of the cæcum was determined on.

The skin was penetrated with a sharp straight bistoury at the most salient part in the flank, about the middle of an imaginary straight line extended horizontally from the angle of the ileum to the last rib, and, for want of a larger trocar, we made use of one of Guérin's, which are used for injections into the joints. This instrument was plunged perpendicularly, with one thrust through the muscular parietes of the abdomen so as to penetrate the arch of the cæcum, which it did with facility, the resistance of the skin having been previously surmounted by the incision made by the bistoury. The stillette was no sooner withdrawn from the wound than the gas made an impetuous eruption to escape, followed by frothy matters, and spreading around an empyreumatic vegetable odour.

At length, this current was on a sudden interrupted, on account of the canula being so short that it slipped out of the gut as soon as the latter came to subside and retire from proximity with the parietes. This first result obtained by puncture proving insufficient, we were compelled to renew the operation. A first incision was made through the skin in a part of the flank nearer to the lumbar vertebræ, and again the trocar was plunged through the abdominal muscles in a direction nearly parallel with the transverse lumbar processes. In this way the instrument penetrated the most prominent part of the cæcal arch, and at a point where the retraction of the gut was not to be feared so much to alter the parallelism between the aperture through the gut and that through the skin. This gave issue to a prolonged flow of gaseous fluids having a repulsive odour; and with the efflux the parietes gradually lost their distension, and the respiration became fuller and freer. The canule was retained in the aperture until the current of gas ceased, and then was withdrawn. The belly had now recovered its former dimensions and suppleness.

The horse was relieved. His countenance had changed for the better; but his pulse was depressed and his skin cold. In order to produce re-action, his body was ordered to be enveloped in two cloths dipped in cold water; and over that to be placed six dry cloths, and he was to be left to himself in a stable made hot. In twenty minutes a very strong re-action had become established in the skin; the hands introduced underneath the cloths experienced great heat; the pulse had recovered its fulness, and with it the peristaltic action of the intestines had become restored; for the animal now continually passed gas and excrementitious solid matters. From this moment all colicky symptoms disappeared.

Now, however, that all apprehension from gaseous indigestion was over, there remained behind such as might arise as consequences of the operation, among which the chief was *peritonitis*. To meet this, bloodletting was practised, and a large sinapism put upon his belly. The next morning, the horse appeared in full spirits, drawing his provender out of his rack; and the quantity of accumulated faecal matters he had evacuated showed the canal to be perfectly free. On the eleventh day after his admission, he returned to his master quite recovered.—*Réc. de Méd. Vét., March, 1853.*

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## FIVE HORSES STUNG TO DEATH BY BEES.

*Observations furnished by M. E. CLICHY, V.S., à Janville (Eure-et-Loire.)*

OF the five horses attacked by the bees, one was dead on M. Clichy's arrival; while the four others, which had been withdrawn from the scene of the accident with considerable difficulty, after having cut their ropes, were in an extraordinary state of exasperation. One three-year-old horse particularly, of very strong constitution, when turned into a loose place, became so outrageous that approach to him was impossible; under continual agitation he lay down and rose again incessantly; or he threw himself against the walls of his abode, and tore his flanks. He was deaf to the voice of the man looking after him, and under extreme excitability; while the lids were so swollen as to completely cover his eyes; and his respiration, laborious from agitation, was rendered yet more so by the tumefaction of his nostrils. No treatment could be put in practise, and he in a short time died.

The three others, though difficult of approach, received some treatment. They were less agitated than the one that was dead had been, though their symptoms were the same. In addition to oppressed breathing, and full and strong and very quick pulse, they had injected membranes; pupils dilated to an extraordinary degree; the borders of all the natural apertures swollen; the tongue larger than usual; exhibiting black spots, from the stings sticking in the mucous membrane.

**TREATMENT.**—Dry frictions to eradicate the stings implanted into the skin; frictions with ammoniacal liniment; bloodlettings from the jugulars. The blood appeared thick and black, and quickly coagulated. Injections were thrown into the mouth. All the horses died.

**AUTOPSY.**—In all of them, a great quantity of stings were found sticking in the skin, especially around the nose, eyes, mouth, ears, anus, flanks, sheath, and internal surfaces of the thighs. The borders of the natural orifices were much tumified; excoriations about the body from frictions and blows. Some of the horses had their teeth broken. Besides which, there were to be seen infiltrations under the skin, and sub-cutaneous collective tissue in different parts, especially when the bones were projecting, where there were stagnations of blood.—*Réc. de Méd. Vét., March, 1853.*



## Home Department.

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### ON THE HEREDITARY DISEASES OF HORSES.

By FINLAY DUN, Jun., V.S., Lecturer on Materia Medica, &c., at  
the Edinburgh Veterinary College.

#### PRIZE ESSAY.

*(From the Journal of the Royal Agricultural Society, vol. XIV.)*

#### FIRST PART.

OUR everyday experience of the production and development of plants and animals at once suggests the existence of the great natural law embodied in the familiar saying, "like produces like." In accordance with this law the peculiar properties, characters, and qualities of the parent—whether good or bad, healthy or diseased, external or internal—are transmitted to the offspring, or, in a word, are hereditary. To illustrate this natural law of hereditary transmission, with especial reference to the diseases of horses and cattle, is the object of this report, and, in treating of the subject, we shall notice—

- I. General hereditary characters, both healthy and diseased.
- II. The hereditary diseases of horses.
- III. The hereditary diseases of cattle.

1. Many interesting and valuable facts have been recorded which prove, beyond all doubt, the hereditary tendency of many of the physical, mental, and moral qualities of man. Parents transmit to their children their own—or, at all events, similar—external forms, similar intellectual capacities, temperaments, dispositions, virtues, and vices, as well as similar tendencies to particular diseases. Certain families are remarkable, during many centuries, for tall and handsome figures, and for a striking similarity of features; whilst others perpetuate a less perfect form, the peculiar deformities of the parents reappearing in the children of each successive generation. For example, the thick upper lip of the members of the imperial house of Austria has been a characteristic of the family for centuries; and every one is familiar with the curious case of the Yorkshire family with their six fingers and toes, which remarkable conformation has continued for

several generations ; and other analogous cases are recorded.\* But the hereditary transmission of external form is exemplified, on a more extended scale, by the striking resemblance often observed amongst the different individuals of a community or race, even where these are exposed to different external agencies. The cases of the Jews and the Gipsies will suggest themselves to every one as most apposite examples. Although exposed for centuries to the powerfully modifying influences of external circumstances of climate, country, association with nations of very different customs and habits, these remarkable races still retain their identity, and remain distinct and peculiar people. But it is not alone their face or figure that remains unaltered, their manners, habits, and customs are also uniform and permanent : a most striking proof of the hereditary transmission of almost every bodily and mental character and quality.

As regards intellectual ability, it is observed that certain races are remarkable for intelligence and aptitude in the acquirement of knowledge, and others for stupidity and narrowness of capacity ; that the children of such races, although reared and educated with equal care, always show much difference in intellectual attainments ; and that it is only after educating several generations of the less-gifted race that they attain the natural capacity of the more gifted. Both ancient and modern history afford many striking instances of analogous temperaments and dispositions being transmitted from father to son through many generations ; of some families remarkable during centuries for virtue, honour, and liberality, and of others notorious during an equally long period for every sort of wickedness, vice, and oppression.

But diseases, as well as physical and mental qualities, descend from parent to children. Many of the most widespread and fatal maladies affecting the human subject are hereditary. Under this category we may include pulmonary consumption, which destroys so many of the inhabitants of these islands, frequently decimating, and sometimes completely sweeping away, entire families ; scrofula, gout, gravel, and rheumatism, which, like consumption, occurs chiefly in predisposed subjects, and in the progeny of those who have themselves suffered from them ; most nervous diseases, especially palsy, epilepsy, and insanity, which rarely attack any individual without also affecting many of the same family ;

\* 'Researches into the Physical History of Mankind,' by James C. Prichard, 3d edition, pp. 244-5. See also, at pp. 347-9, the description of a man whose skin was greatly thickened and covered with warty excrescences, and in whose descendants these peculiarities were noticeable in the third generation.

and many imperfections of the external senses, as deafness and blindness. These are the most common hereditary diseases incident to man; most of them have their analogues in the lower animals, in which they are also hereditary.

Amongst horses and cattle we find, as in the human subject, ample illustration of the hereditary tendency of external form, disposition, habit, and disease. The parent transfers to its offspring size, shape, and general conformation similar to its own; and the aphorism "like produces like" is as applicable to faulty and disproportioned as to beautiful and symmetrical form, to diseased and debilitated as to healthy and vigorous constitution, to gentle and tractable as to fiery and indomitable disposition. The size, weight, general appearance, expression of countenance, fleetness, and temper of the horse are all hereditary. Many illustrations might be given of particular families being remarkable during several generations for good or bad *points*, as for well or ill-formed head; for high and well-developed, or for low and weak withers; for fine, strong, and well-turned, or for coarse, weak, and ill-formed limbs. Peculiarities of colour often extend through many generations, and are so constant in their transmission as sometimes to form one of the distinctive characteristics of a race. Indeed, most breeds of horses have a prevailing colour, to which there are few exceptions. The heavy horses of Lincolnshire, for example, are generally black; the Cleveland, bay; and the wild horses of the plains of Eastern Siberia, dun. Particular markings, also—as white spots on various parts of the body, stars and blazes on the face, one or more white feet or legs—often continue for many generations peculiar to certain families.

The general constitution of an animal is no less hereditary than the external qualities to which we have just alluded. Some stocks of horses, for example, can sustain with impunity an amount of labour which, in others of the same breed, would cause serious bad effects; and the peculiar action both of medicines, and of morbid causes, is generally observed to be similar in members of the same family. But besides the general constitution of the parents, their special condition at the time of copulation also appears to be to a certain extent transmitted to the offspring; and hence the necessity of selecting for breeding purposes only animals of a strong and healthy constitution, and of using them only when they are in full possession of all their physical energies. For a high state of the physical energies at the time of impregnation is believed to induce a correspondingly great development of physical power in the offspring; and of this we have a curious

example in the fact, that the Arabs, before bringing the parents together, give them a short gallop, believing that the spirit and fleetness of the progeny is thereby enhanced. On the other hand, we find that even a slight and temporary debility at the time of copulation exercises a marked deteriorating effect upon the spirit and vigour of the offspring, and it is well known that the stock of old stallions is generally weak and spiritless: "Senes valetudinarii, imbecilles . . . filios vitios constitutione gignunt."—*Fernel*.

It must be observed that external circumstances, as diet and temperature, exercise a powerful influence on animal growth and development. With meager fare and exposure to cold, animals do not reach the average size of their race, and beget stock as much below average as themselves. In similarly unfavorable circumstances, these again do not reach the size even of their own immediate parents, and procreate a still smaller progeny. Conditions favorable to growth and improvement operate in a similar manner. They improve each individual, and the descendants of each inherit to a greater or less degree the improvements on the parent stock. Animals, then, are altered by circumstances, and transmit to their progeny their altered forms. Thus, after a few generations, the external characters of a breed are often greatly modified, and hence have arisen the permanent varieties of horses and cattle met with in different parts of the kingdom—the tall heavy horse of the Lincolnshire fens, the light, active, but powerful thorough-bred, the small pony of Shetland—and amongst cattle, the short-horned, the Ayrshire, and West Highland breeds, and many others—varieties which have a common origin, but which are now so distinct and permanent that each produces a progeny with its own distinctive characteristics. Thus, even acquired and artificial habits may become hereditary. Certain districts are famous for their trotting horses, and many Irish hunters are remarkable for their peculiar style of leaping. Some years ago the Earls of Morton and Zetland imported from Dongolia, in Upper Egypt, several entire horses, which were remarkable for their high and prancing action. Their progeny, both out of thorough-bred mares and those of the heavier breeds, inherited the action of the sires, to such a degree that they had all to be sold as carriage-horses, being unfit for racing, hunting, or almost any other kind of work. Prichard states, in his 'Natural History of Man,'\* that the horses bred on the table-lands of the Cordilleras "are carefully taught a peculiar pace, which is a sort of running amble;" after a few genera-

\* Second Edition, p. 35.



tions this pace becomes a natural one, young untrained horses adopting it without compulsion. But what is still more curious is the fact, that, if these domesticated stallions breed with mares of the wild herds which abound in the surrounding plains, they "become the sires of a race to which the ambling pace is natural and requires no teaching." "The hereditary propensities of the offspring of Norwegian ponies," says Mr. T. A. Knight, in a paper read before the Royal Society in 1837, "whether full or half bred, are very singular. Their ancestors have been in the habit of *obeying the voice of their riders*, and not the bridle, and the horsebreakers complain that it is impossible to produce this last habit in the young colts; they are notwithstanding exceedingly docile and obedient when they understand the commands of their master. It is equally difficult to keep them within hedges, owing, perhaps, to the unrestrained liberty to which the race may have been accustomed in Norway."\*

Much of what has been already stated concerning the hereditary nature of the external conformation and other qualities of the horse is also applicable to cattle. The progeny of a common stock bear a close resemblance to their parents and to each other in general appearance, length of limb, development of chest, shape of carcase, position and size of the udder, adaptation for the dairy, thickness of skin, and length and texture of the hair. In some of the hot provinces of South America there are cattle "noted for an extremely rare and fine fur. . . . The variety is reproduced or descends in the stock."† In the same localities is also found another race with an entirely naked skin, which peculiarity is also hereditary. In our own country, too, there are great differences in the length and texture of the hair of various sorts of cattle—differences which, as in the South America animals, are transmitted to the progeny. The existence or non-existence of horns, their size, shape, and curvatures, are characters the hereditary nature of which is generally admitted. But defects and deformities may also become permanent in a stock. We are informed by a friend that he has seen several cattle with a small portion of skin covered with short hair situated on the eye, just within its outer canthus; and that this peculiarity had been traced back for five or six generations, and had occurred in every case in exactly the same spot of the right eye.

We have deemed it advisable thus far to consider the hereditary tendencies of external form, of habit, and of con-

\* See Prichard's 'Natural History of Man,' 2d edition, p. 72.

† Ibid., p. 33.

stitution, in order to illustrate more fully and satisfactorily the hereditary tendencies of disease, which we shall now proceed to discuss.

Hereditary diseases exhibit certain eminently characteristic phenomena, some of which we shall here enumerate :

1. They are transmitted by the male as well as by the female parent, and are doubly severe in the offspring of parents both of which have been affected by them.

2. They develop themselves, not only in the immediate progeny of animals affected by them, but also in many subsequent generations.

3. They do not, however, always appear in each generation exactly in the same form. One disease is sometimes substituted for another analogous to it, and this, after some generations, becomes again changed into that to which the breed was originally liable. Thus, stocks of cattle previously subject to phthisis often become affected for several generations with dysentery, to the total exclusion of phthisis, but by and by the dysentery disappears to give place to the phthisis.

4. Hereditary diseases occur to a certain extent independently of external circumstances, appearing under all sorts of management, and being little affected by changes of locality, separation from the diseased stock, or such other causes as modify the production of non-hereditary diseases.

5. They are, however, most certainly and speedily developed in circumstances inimical to general good health, and often occur at certain so-called critical periods of life, when unusual demands on the vital powers take place.

6. They show a striking tendency to modify and absorb into themselves all extraneous diseases. For example, in an animal of a consumptive constitution, pneumonia seldom runs its ordinary course, and, when arrested, often passes into consumption.

7. Hereditary diseases are less effectually treated by ordinary remedies than other diseases. Thus, although an attack of phthisis, rheumatism, or constitutional ophthalmia, may be subdued, and the patient put out of pain and danger, the tendency to the disease will still remain, and be greatly aggravated by each attack.

Hereditary diseases do not necessarily show themselves at birth. In horses and cattle there are only a few which do so. The scrofulous diathesis sometimes presents itself in large collections of pus, which occasionally prove fatal within a few days after birth; and symptoms of hydrocephalus, rickets, and occasionally rheumatism—all hereditary complaints—are also sometimes found present at that early period. But most

hereditary diseases develop themselves only some considerable period after birth, and the inherent tendency may even remain later during many years. Thus, in man, gout and gravel do not usually develop themselves until after the meridian of life, and in horses and cattle the tendency to consumption, scrofula, and rheumatism may remain dormant for many years. Nay, more; diseases of an undoubtedly hereditary nature may remain latent even for a generation or two, and afterwards re-appear with all their wonted severity: "*Silente sæpe morbo in genitore, dum ex ævo derivatur in nepotem;*"\* and such cases are not of infrequent occurrence, and are certainly not at all incompatible with the hereditary nature of a disease. They may be satisfactorily explained in various ways. The morbid tendency may be so slight as not to interfere with health, or the animal may have been reared in circumstances where the exciting causes of the disease have been avoided. But in these cases, where a hereditary disease disappears for a generation or two, the tendency to the disease and the conditions in which that tendency consists are still transmitted, as is obvious from the fact, that the disease develops itself in the descendants with all the characters of a hereditary nature. It requires, indeed, many generations, and a careful selection of parents, to eradicate from a stock a hereditary tendency to disease, and, for a considerable time after it has been got rid of in the majority of the progeny, isolated individuals appear, which, in the phraseology of breeders, "call back" to their more remote progenitors, and possess, like them, an unusual tendency to disease.

There are few diseases which invariably owe their development to hereditary causes. Diseases usually regarded as hereditary are sometimes produced accidentally, and without the intervention of any hereditary tendency. Rheumatism, which often owes its existence to an inherent rheumatic diathesis, may be developed in most animals by continued exposure to the ordinary exciting causes of the malady. Specific or deep-seated ophthalmia, although generally dependent on a constitutional predisposition, sometimes destroys the eyesight of animals in whose pedigree no such disease has been known; and even consumption and scrofula—diseases easily traceable in the vast majority of cases to hereditary predisposition—are occasionally developed in previously healthy constitutions by the conjoined agency of bad feeding, cold, and neglect. From this it is obvious that the production of any disease by extraneous causes is not at all incom-

\* Boerhaave, '*Aphor. de Curandis Morbis,*' 1075.

patible with its being in other cases decidedly hereditary. Such cases as we have just adduced only serve to show that the same disease is not always referable to the same causes, and that causes very different in their nature occasionally produce the same effects.

Diseases accidentally produced during the lifetime of an individual occasionally become hereditary, but not usually so. Blindness produced by injury or ordinary external causes, and roaring produced by phlebitis or even by bronchitis, are seldom hereditary; and it appears as a general rule, admitting, however, of some exceptions, that a local injury or disease produced by accidental causes is not likely to be hereditary, although a generally deteriorated state of health, however produced, is very apt to be so.

There are various maladies which, from their simulating some of the characters of hereditary diseases, have been thought by many to be truly hereditary. Abortion affords an apt illustration of such a mistake. This disorder frequently prevails in a stock for a long series of years, and sometimes even during several generations. But although corresponding in these respects to many hereditary diseases, it differs essentially from them, inasmuch as it attacks all animals alike when exposed to the same exciting causes, shows no special preference for those bred from a stock in which abortion has been prevalent, does not affect those removed to a distance from the locality in which the disease prevails, and may sometimes be effectually and immediately arrested by a radical change in the system of management. These conditions are quite sufficient to disprove the hereditary nature of abortion; and when such conditions occur in connection with any other disease, they may safely be accepted as ample evidence of its being produced by external or extraneous circumstances, independently altogether of any hereditary predisposition.

There are some maladies in which it is comparatively easy to trace the connection between conformation and disease. In the horse certain sorts of limbs notoriously predispose to certain diseases. Thus, bone spavins are most usually seen where there is a disproportion in the size of the limb above and below the hock; curbs, where the os calcis is small and the hock straight; stains of the tendons of the fore-leg, where the limb is round and the tendons and ligaments confined at the knee; and navicular disease, where the chest is narrow and the toes turned out. Amongst horses so formed, these diseases are unusually common, and are developed by causes which would be quite inadequate to produce them



in animals of more perfect conformation. But it appears to us that internal and constitutional hereditary diseases also depend upon the altered conformation or texture of the parts specially affected, or upon some disturbance of the relation which should subsist between the different constituents of these parts. This abnormal state of the internal parts is seldom within the limits of our means of observation or investigation, but its existence in animals having a hereditary predisposition to disease cannot, we think, be doubted, as we shall now endeavour to show. The ground of our reasoning rests chiefly on the analogy which subsists in all respects between external and internal parts. The same law which regulates the hereditary transmission of form, texture, and relation of external and visible parts, also operates with equal force in regard to the form, texture, and relations betwixt the components of parts internal, and, it may be, inaccessible to ordinary powers of investigation. Then, if, as we have shown, external hereditary diseases, such as lamenesses, are traceable to external hereditary peculiarities of conformation, we do not think it pushing our analogy too far to assert that, in like manner, internal hereditary diseases must, in great part at least, depend upon some inherent hereditary peculiarity of the internal parts affected. The following remarks will, we think, tend to support our hypothesis. Particular conditions of the blood often become hereditary, and, if an excess of the red globules of the blood be hereditary, the disease of plethora to which that excess gives rise will also become hereditary. We have a striking example of this in many of the improved breeds of cattle, in which is conjoined a remarkable excess of the red globules of the blood with a highly plethoric habit of body. If the eye be predisposed to deep-seated ophthalmia, a slight exposure to cold, or even an error in diet, will be sufficient to induce the disease. But before an acute attack there is seldom noticeable in the eye any alteration of texture or of function indicating the existence of such a tendency. That such a tendency does, however, exist there can be no doubt, and we think that it must consist in an altered condition of some of the deeply-seated parts of the eye. Our conclusion is, therefore, that every hereditary disease depends upon some hereditary abnormal condition predisposing to that disease. This abnormal condition may be either local or general. It may affect the form, structure, texture, quantitative or qualitative composition either of solids or fluids. It may constitute so powerful a predi-ponent to disease as speedily to cause impairment of health, or it may be so slight, that without the co-operation

of exciting causes, it will fail to produce any apparent disturbance of the general health. But animals with such inherent defects are always predisposed to disease. Influences which are harmless in others often produce in them serious and irremediable disease. Thus, ordinary work causes spavins or curbs in horses with badly-formed hocks; a slight exposure to cold brings on phthisis in a cow of consumptive diathesis; simple engorgement of the stomach causes an attack of ophthalmia in a subject predisposed to it. Hence, an animal having a hereditary tendency to disease labours under many disadvantages, and his health, and even his life, are in constant jeopardy. He is always liable to suffer from slight and temporary errors in diet and regimen, and bears about with him from birth an ill-fated inheritance which affords a congenial soil for the reception and development of disease, and is transmitted to his posterity unimpaired in power, and undiminished in extent.

*(To be continued.)*

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#### THE ART OF PRESCRIBING IN ITS RELATION TO GENERAL PRACTICE.

WHEN the philosopher said, that "God has not been so sparing to men to make them barely two-legged creatures, and left it to Aristotle to make them rational," he meant that mankind possess a native faculty to use their reason without being instructed in methods of syllogising, and that the shepherd has no need of the courtly arts of ratiocination to teach him that "the property of rain is to wet, and fire to burn; and that he that wants money, means, and content, is without three good friends." Now, if Touchstone had lived in this golden age of quackery, we think he must have included the clown's way of dealing with sham physic among his "Instances" of "Natural Philosophy."

We are acquainted with nothing in the whole history of our science more striking than this fact, which is known to every parish doctor in the realm — that not only are all forms of spurious medicine dependent on the educated and wealthy for their support, but that if any board of guardians in England were to attempt to condemn their poor to the supervision of a professed disciple of Mesmer, Hahnemann, or any other heretic, the serfs of the soil would rise to a man, and resist the abominable fraud. With this preamble, we proceed to the main points of our argument.

It has been frequently said, that our forefathers brought

upon us the homœopathic incubus, by their system of drenching; in fact that, when people had been surfeited with physic, they naturally ran to the opposite extreme, and eagerly embraced a creed which promised their gustatory nerves an exemption from "nasty stuff." If this assertion, then, be true (and there is every reason to believe that it is so), another and a far more weighty effect has followed in the wake of this popular movement, viz., the determination on the part of the profession at large to abandon the universal practice of drugging their patients, for one less disgusting to the sick, and equally advantageous to the doctor. The plan which is now coming generally into use, of charging for visits and attendance, is in itself every way desirable; but it cannot be forgotten that the new doctrine is suggestive of new methods of prescribing; and it may be worth while to consider whether we are not losing substantial good in our endeavours to satisfy the whims of patients, by attempting to reduce our prescriptions to the attenuated formulæ of the medicine chest.

We now propose to examine into this matter a little more narrowly; and, for convenience' sake, we shall divide the subject into two parts.

First, let us inquire how far we may with safety depart from old-established forms of prescribing; and, second, whether the progress of such a reform is affecting, or is likely to affect, those who dispense the physic that is swallowed. Let it be once for all understood that our observations do not in any way apply to the operations of the retail apothecary or druggist, since we are now concerned only with the acts and prospects of that large body of men who prescribe and send out their own medicines from their private houses—namely, the general practitioners.

The art of prescribing is to the doctor what the art of colouring is to the painter. Both have the power of producing the same results by different processes. The painter, by the aid of "hand and eye," will compound on his palette two or more tints, which are identical in appearance and in their effects on the canvass, from a variety of colours; so the doctor, from the stores of his *materia medica*, will prescribe remedies derived from many sources, all of which shall have the same property, namely, that of removing some given symptom. In both cases, the real skill consists in judiciously applying the material to the thing to be done. Now, we are very much inclined to carry our analogy further, and to suggest that what has been found to be true, and acknowledged universally, in the art of painting, may

likewise be believed in that of medicine. The methods of mixing and laying on colours are settled by common consent among painters, and any deviation from academical rules is regarded by them as a piece of quackery; indeed, they have a precedent for the authoritative tone they adopt in the success of their time-honoured processes, as they appear in the works of the old masters; and can we point to no such precedent in the history of our art? The convenient forms, the exact quantity to be swallowed, the division of doses into four, six, or eight parts corresponding with our arbitrary divisions of the twenty-four hours, are among the first examples of the usefulness of the old system which occur to us; but we would come to closer quarters with our subject, and ask why it is that hospital authorities, which have the power to dictate their own laws to those who seek their aid, prefer holding fast the elder traditions, to adopting any scheme of pharmacy which seems to promise less labour, and at least equal efficacy? We recommend to our readers the Pharmacopœia of the Royal Hospital of St. Bartholomew, as an illustration in point. That institution has for many years profited by the services of men not only among the ablest in the profession, but the least likely to be led away by their prejudices in favour of the omnipotence of physic: and yet the formularies in use at that charity are both found to be the most advantageous to the inmates, and are copied and carried away into private practice by the students who are educated within its walls.

There has been, of late years, a strong bias both in and out of the profession, in favour of separating the duties of the prescriber from those of the dispenser; many have adopted the plan; and there appears *primâ facie* no valid reason why it should not be generally carried into execution—at least, in cities and towns where druggists abound. In villages and country places the thing would be impracticable; and if it ever came into common use, the village doctor must either undertake to maintain at his own charge a druggist near his residence; or, what is more probable, consent to be divided from his brethren and to rank a little below them. We do not, however, anticipate any such vital change in our constitution; for we believe that the genius of the English people is wholly opposed to it. We have seen what happened in the olden time to the system of inductive philosophy which Bacon endeavoured to construct; how completely it fell to the ground without producing any practical results; and this failure has been shown to have been owing to a haughty disregard, so universally prevailing



at the time, of those very mechanical arts at which we are, in our way, aiming a blow, when we seek to abandon the so-called servile offices which have hitherto been part and parcel of our art.

The assumptions and vapid hypotheses of the philosophers of the middle ages were mainly due to their contempt of manual operations. They missed, by their neglect of experiment, the only path by which they could obtain a knowledge of the real properties of objects; and while they surveyed nature from their lofty position, and forged theories to account for the *causes* of things, totally disregarding the more immediate investigation of *effects*, they founded a school of false philosophy. The workers of those menial arts which were permitted to survive the dignified suppression of such resources could not help adopting the speculative notions of their betters; and thus arose, from the shadows of observation without patient experiment, the creed of the alchemists.

We do not mean to say that the prospects of science will be absolutely forfeited by any radical reform in our professional manipulations; but we do mean to assert (and we appeal to history for the truth of what we state) that the tendency of all systems which aim at separating the doctrines of science from manual labour, is to give a wrong direction to the speculative mind; and, if generally followed out in our case, seriously to cripple the usefulness of medicine.—*Association Med. Jour.*, 10th June, 1853.

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#### ANOMALOUS STATE OF MEDICAL LAW.

THE case of *Cary v. Napier* is a curious illustration of the anomalies connected with the present state of medical law. The plaintiff, a duly-qualified surgeon, attended the defendant for relaxed uvula and enlarged tonsils. His charges appear to have been reasonable and just. No complaint was made of his want of skill. Indeed the remedies which he ordered were successful. The defendant, as the judge well remarked, set up the "most ungracious and improper defence"—that Mr. Cary was not entitled by *law* to practise *medicine*. Upon the solitary evidence of Dr. Thomas Smith, who regarded the case as "strictly medical," Mr. Cary was nonsuited. Now, in the first place, it is by no means clear, that the disease for which Mr. Napier was successfully treated was not really a surgical one. Indeed, notwithstanding the dictum

of Dr. Smith, we do not hesitate to express our conviction that it was more surgical than medical. Why was not Mr. Cary prepared with evidence upon this point? True, his own opinion was given, and surely it was as much entitled to respect as that of Dr. Smith. But who can consistently uphold a law which admits of distinctions without differences, and permits of the grossest anomalies and absurdities? Now, observe, there are nineteen bodies in the United Kingdom which grant diplomas or licences to practice. A practitioner may hold diplomas from eighteen of these without having the legal right of prescribing and dispensing a single dose of medicine in what is called a "medical" case in England or Wales. Now there is no clear or defined limit between medicine and surgery. No one can state explicitly where one begins and the other leaves off. "Physicians" constantly treat "surgical" cases. The practice of some "surgeons" is almost exclusively "medical." Dr. Smith may regard a certain case as strictly medical, Mr. Jones will equally insist that it is strictly surgical. Is this a proper state of things? But this is not the worst. For although a person may hold eighteen of the nineteen diplomas alluded to, and yet not be able to prescribe and dispense a single dose of medicine in a medical case, he may hold not one of them—he may never have attended a course of lectures—he may never have had a knife in his hand, and yet he may call himself "surgeon." Not only may he do this with impunity, but he may practise as a surgeon, and he may recover at *law* for services rendered by him in that capacity. Nay, with impunity he may style himself doctor, professor, or physician, and practise in any and every case, so long as he does not dispense his own medicine; for it is well known that the College of Physicians never prosecute. And yet such a system as this meets with admiring though interested supporters! If complaints are made against certain persons who prosecute a duly-qualified surgeon, their answer is, he is breaking the *law*. If remonstrated with on the injustice of selecting a qualified practitioner as a victim instead of a quack and an impostor, the answer still is, he is practising *illegally*. But what is the value of a law which admits of the absurdities and anomalies we have referred to? Clearly, that though it may have conferred many benefits on the profession in times gone by, that it is most unfitted for the present day, and calculated to inflict great injustice upon many. A change is demanded. A change which shall not make the education or examination of a medical practitioner more restricted, but one that shall render it compulsory for every one who undertakes to cure

disease, whether "medical" or "surgical" amongst his fellow-countrymen, to pass a complete and proper examination in all branches of his profession. That, having passed such an examination, he may practise in any or every department of his profession that he may choose; that all shall have equal rights and privileges; and that the public and the profession shall be alike protected from the myriads of impostors, cheats, and knaves, who, professing to be members of a noble profession, bring not only disgrace upon that, but inflict irreparable injury upon their dupes, the public.—*Lancet*, 28th May, 1853.

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## THE PHYSIOLOGICAL DEMONSTRATION OF THE TEETH.

DR. BOON HAYES thus describes the structure of these organs:

"In the first place, observe the pulpal cavity, which is to the tooth what the medullary cavity is to bone, and which originates in the same way. Into it pass an artery, vein, and nerve; and these ramify upon the pulpal surface, the artery carrying blood to the dentinal tubuli, whence the *liquor sanguinis* (not blood-corpuscles) proceeds, to the nourishment of this apparently inorganic mass.

"In the teeth of some animals, this cavity seems to send off diverticula between the dentinal tubuli, as if for the purpose of supplying them with more vascularity. On to the walls of the pulpal cavity the dentinal tubes open, and thence radiate to the enamel superiorly, and the crista petrosa inferiorly.

"I think it would not be difficult to prove that caries of teeth more frequently proceeds from inflammation commencing in this cavity than from any other cause. But I shall refer to this at another period.

"The dentine, or ivory of teeth, is their essential component; it consists of tubes which lie, for the most part, in a parallel direction, and intertubular substance. When examined with a high power, and by transmitted light, the tubuli appear dark.

"Now, these tubuli are very, very much more minute in diameter than the blood-globule; hence the *liquor sanguinis* alone can permeate them for their nourishment; so that teeth are in the same condition as bone in this respect. The dentinal tubes, of course, appear dark, and the lighter and apparently broader masses are the real substance of the dentine.

In this, and especially near the layer closest to the enamel, dentinal cells are sometimes seen, which may probably be analogous to the lacunæ of bone. If you examine the dentinal curvatures, you will see that they are of two kinds; one set, in bold and evident curves; another set, not so evident, but which, with a little patience and high magnifying power, you may see, curves *upon* the curves already demonstrated. The former are called the 'primary,' the latter the secondary 'curves' of the dentinal tubuli (like a biserrated leaf in botanical description). From the tubuli minute branchlets are given off on the sides; and towards the end the tubes terminate, either in cells, or by anastomosis, or by looping back upon themselves.

"The Cementum, or 'crusta petrosa,' at first envelopes the whole tooth, but soon gets worn off the crown, as far down as the neck. It is, compared with the other two structures, very soft, and, examined with the microscope, more closely resembles bone than any of them; in fact, it is continuous with the bone of the jaw in some animals, thus proving its identity. It contains lacunæ and canaliculi, which are easily demonstrable; and, when there is a large mass of it, something like Haversian canals.

"There is, then, a great analogy between tooth and bone. In the crusta petrosa absolute likeness, and in the dentine (the constant tissue of the teeth),—analogies too striking to be overlooked,—viz., the tubuli analogous to the canaliculi; intertubular cells, analogous to the lacunæ; and intertubular substance, analogous to the laminæ of bone. In the enamel the greatest departure is observable, but not wider than its peculiar function suggests; and it must be remembered, first, that it is the least constant tissue of tooth; and, secondly, that its chemical composition is very much the same as that of other parts of tooth, all of which clearly resemble bone composition.

"Lastly, the analogy is completed in a review of the mode of tooth development. Thus, upon a mucous papilla, a large quantity of gelatinous matter is observable, in which certain cells appear; the gelatinous matter exactly resembles the incipient cartilage in which ossification commences. This papilla is supplied with an artery, which nourishes its cells, and these gradually so develope, that the older ones are pushed outwards, and form the dentine."—*Medical Circular*, 29th June, 1853.

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THE GALVANIC CAUTERY IN THE TREATMENT OF  
UTERINE DISEASES.

By ROBERT ELLIS, Esq.

THE earliest application of galvanism for the purpose of cauterising was made by Mr. Marshall. Mr. Ellis's investigations had led him to a more extensive application of the remedy; and he had sought to provide for the collection and concentration of heat over a considerable surface. With this view, he used a tube of porcelain—which he had found to be the best substance for the purpose—round which was twisted about a foot of platinum wire. The porcelain is placed at one end of a silver catheter, and is connected with the conductors of a Grove's battery by means of a copper wire passing through the catheter. This instrument he believed to possess an advantage over the actual cautery in cases where it was indicated, in being always ready for use, and far less formidable in appearance.

In the application, the patient should lie on her left side. A cylindrical glass speculum is introduced, and the diseased part made to protrude through it. The mucus on the surface of the part must be removed, in order to avoid loss of heat. The platinum wire having been in a few seconds heated to a white heat, the porcelain becomes hot; and the whole is applied to the diseased part. If any portion has escaped, the cautery must be again applied. It is important that the platinum wire be raised to a white heat; otherwise it is liable to produce pain, and slight hæmorrhage from a portion of the tissue adhering and being torn away. The length of time for which it is applied should be in proportion to the extent and depth of tissue which the surgeon thinks it desirable to destroy. The pain is generally less than that produced by the application of caustic.

The after treatment consists of absolute rest, saline draughts with hyoscyamus, and opiates if required. Warm soothing injections are also useful; and it is important that these be effectually applied. After two or three days, the patient may rise; but should still rest as much as possible. The eschar generally comes away from the eighth to the tenth day.

The cases in which this treatment is applicable are those of long-standing ulceration with induration, prolapsus uteri, and in the prolapsus of the vagina and bladder, described by Dr. Golding Bird and Mr. I. B. Brown. Mr. Ellis had used it in twenty cases, without any untoward results.

*Dr. Murphy* said, that *Mr. Marshall* and *Mr. Ellis* had done great service by enabling the cautery to be used in a form divested of terror to the patient. The terrible appearance of the actual cautery had given rise to the adoption of chemical means; but these had the inconvenience of spreading beyond the part intended to be acted on; whereas the power of limiting the action was an advantage possessed by the actual cautery. The employment of a porcelain cylinder for increasing the heated surface was an improvement due to *Mr. Ellis*.

*Mr. Dendy* suggested that *Drs. Routh* and *Crisp*, who had witnessed the employment of the actual cautery in cases of uterine disease by *M. Jobert de Lamballe*, should give an account of the cases in which he used it.

*Dr. Routh* said, that *M. Jobert* applied the cautery in nearly all those cases in which caustic was used by *Dr. Henry Bennett*; viz., in hypertrophy of the cervix, in induration with so-called ulceration, and in cancer.

*Mr. Richardson* had been informed that *Dr. Simpson* of Edinburgh had used potassium as a cauterising agent.

*Mr. Streeter* inquired why, if cancer of the uterus is treated with at least apparent success by cauterisation, the same remedy could not be applied to cancer in other parts of the body? He believed that many cases of uterine disease had been brought into a hard, suspicious-looking state, by the use of irritant injections; whereas warm baths, hyoscyamus, and constitutional treatment, might have cured them.—*Association Med. Jour.*, 20th May, 1853.

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#### THE BEAR UPON HORSEBACK.

*Mr. Buckland* had made a promise that *Tig* should pay a visit to a village about six miles distant, and determined that he should proceed thither on horseback. As the horse shied whenever the bear came near him, there was some difficulty in getting him mounted; but at last his master managed to pull him up by the chain while the horse was held quiet. *Tig* at first took up his position in front, but soon walked round and stood up on his hind legs, resting his fore paws on his master's shoulders. To him this was exceedingly pleasant, but not so to the horse, who not being accustomed to carry two, and feeling *Tig's* claws, kicked and plunged to rid himself of the extra passenger. *Tig* held on like grim death, and stuck in his claws most successfully; for in spite of all the efforts of the horse he was not thrown. In this way the journey was performed, the country folks opening their eyes at the apparition.—*Zoological Anecdotes*.

A BILL TO PREVENT THE SPREAD OF THE CONTAGIOUS  
OR INFECTIOUS DISEASE CALLED GLANDERS.

(*Note*.—The Words printed in *Italics* are proposed to be inserted in Committee.)

WHEREAS a disease known as Glanders prevails among Horses, which disease has in many instances been communicated to the human species by contagion or infection, and it is necessary to take measures to prevent such disease from spreading: Be it therefore enacted by the Queen's most excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows :

1. Any justice or justices in petty sessions, or any two justices out of petty sessions, within their respective jurisdictions, may hear and determine, either on the oath of one or more credible witness or witnesses or on the confession of the accused, all complaints made under the provisions of this act, and may make any order hereby authorised, either as to fine or imprisonment, or otherwise; and all proceedings as to compelling the appearance of the accused or of any witness, and as to the hearing and determination of such complaints, and as to the making and executing of such orders, shall be subject in all respects to the provisions with respect to summary proceedings contained in the "Petty Sessions Act, Ireland, 1851," (when the case shall be heard in any petty sessions district,) and to the provisions of the acts relating to the divisional police offices (when the case shall be heard in the police district of Dublin metropolis), so far as the said provisions shall be consistent with the special provisions of this Act.

2. Any person who shall sell, expose for sale, or keep in his possession, or keep or suffer to be kept on his premises, or lead, drive, or bring in or into any street, road, or public place, any horse or beast affected with the said disease or any disease of the like nature, knowing such horse or beast to be so affected, shall be liable to a fine not exceeding the sum of *twenty pounds*, or in default of payment to be imprisoned for a term not exceeding *one month*.

3. Such justice or justices as aforesaid may order any horse or other beast affected with the said disease, together with any troughs, litter, hay, straw, or other articles which

he or they shall judge likely to have been infected thereby, to be forthwith destroyed, or otherwise disposed of in such manner as he or they shall deem proper.

4. If it shall be proved upon oath before a justice that there is reasonable cause to suspect that any horse or beast within his jurisdiction is affected with the said disease, and is in any house or other place, such justice may issue a warrant in the form in the schedule hereunto annexed, to any constable to search such house or place for any such horse or beast.

5. Such justice or justices as aforesaid may pay to any veterinary surgeon who shall have been summoned by him or them, or who shall at his or their request attend and be examined on the hearing of any complaint under this act, or to any other person (not being a police constable) who shall act by his or their order in the execution of the provisions hereof, such sum of money as to said justice or justices shall appear just, not exceeding in the case of any such veterinary surgeon the sum of *two pounds* sterling for every such summons or attendance, or in the case of any other person the sum of *ten shillings*, and the justice or justices shall obtain a receipt duly signed for such payment; and the justice or justices shall deliver all such receipts, together with an account setting forth the same, and for what duties such payments were made, and the name of the townland and barony in which the same were performed, to the secretary of the grand jury for the county, county of a city, or county of a town, as the case may be, in which such expenditure shall have been made.

6. Such grand jury are hereby required at the first assizes, without any previous application made in that behalf to any presentment sessions, to present for such justice or justices such sum or sums as shall be necessary to repay such justice or justices the monies so paid or advanced by him or them as aforesaid, to be raised or levied off the whole of such county, county of a city, or county of a town, or off such district, barony, townland, or parish thereof, as they shall direct; and the treasurer of such county of a city or county of a town, out of the public monies of such county, county of a city, or county of a town which shall then be in his hands or shall next come to his hands, shall pay to the said justice or justices the said sum or sums so presented.

7. This Act shall commence and take effect on the day of *one thousand eight hundred and fifty-three*.

8. This Act shall extend to Ireland only.



## SCHEDULE.

*Warrant to search and destroy.*

County of

\_\_\_\_\_ Complainant. } WHEREAS it appears on the  
 \_\_\_\_\_ Defendant. } oath of A. B. of  
 that there is reason to suspect that a horse [*or* other beast]  
 infected with glanders is in or upon the premises of C. D.  
 situate at

This is therefore to authorise and require you to enter in  
 the daytime into the said premises, and to search for such  
 horse or beast, and to report to me or any other Justice of  
 the Peace of the said county the result of such search.

Signed

Justice of the said County.

To

this

day of

185 .

## THE VETERINARIAN, SEPTEMBER 1, 1853.

Ne quid falsi dicere audeat, ne quid veri non audeat.—CICERO.

IN 1850, Dr. Willems, of the town of Hasselt, in Holland, made the discovery of Pleuro-pneumonia or Peri-pneumonia being supposed to be producible artificially, by inoculation, and of the disease so produced being, not only comparatively harmless in its character, but of its appearing to be prophylactic against the natural and fatal disease. It seems that the Dr. forbore to make his asserted discovery public for two years after it had come to light, and that then the earliest intimation of it was sent to the Belgian Government, the result of which was, on the part of the Government, the appointment of a Committee, in addition to the formation of a special mission, to take the matter into their deliberate consideration. Such transactions in Belgium led to similar proceedings on the part of other countries, amongst the earliest of which were those of our continental neighbours, the Dutch and Belgians; among the latest, our own and France.

At first view it appears extraordinary that, when not merely learned and qualified individuals, but Committees, and even Governments, take such affairs in hand, truthful and satisfactory conclusions should not be arrived at by them; and yet, when we come to recall to mind the disputations

and contests to which vaccination has given, and continues to give, rise, as a preventive or modifier of smallpox, our surprise subsides into disappointment that human judgment and decision should be so erring and wavering, while facts themselves, *cæteris paribus*, remain unaltered. In the case before us, so far from there being any likelihood of the question being "finally and satisfactorily set at rest," we are informed by Professor Simonds (who, it will be remembered, is commissioned by the Royal Agricultural Society to draw up a Report on the subject of Pleuro-pneumonia, and whose second paper was published by us last month,) that "the subject seems destined, for a time at least, to hold its place among the *quæstiones vexatæ*."

When a disease becomes epidemic at certain times or seasons of the year, or sporadic in certain localities, it can hardly fail to assume, at one period or another, features by which it may seem to be, and be called, contagious or infectious, though, in point of real fact, it may happen to be neither. Thus, strangles, for instance, in horses, by many persons, some professional, is regarded as being contagious; and yet, for our own part, we never thought, or had sufficient reason to think so. Influenza or distemper in horses is looked upon by some in the same suspicious light, while others declare the disease to be purely epidemic, and spreading solely through atmospheric influences. But no fact of this description appears to us more suspicious than the one, that glanders, of whose infection everybody now is afraid, and which every surgeon no longer hesitates to admit into his own catalogue of diseases, should, in the time of Coleman, have been denied to be harbourable by the human frame, and by him asserted most strongly to be a disease *peculiar* and confined to the chevaline race. Time—the arbiter as well as consumer of all things—in the end settles all these disputed points; though, in some cases, it takes long, very long, before the settlement comes to hand. It may turn out so in the case we are now considering.

Nobody acquainted with Professor Simonds will withhold from him the credit of having used his best endeavours in this arduous investigation to bring the important question before

him to an issue of some sort that might turn out of service to those most concerned—the members of the agricultural community; caring little, for his own part, which way the investigation led him, so long as it conducted him to a safe and truthful conclusion. He had before him, to light him on his road—First, the Dutch Commission, who reported that animals “who have once had the pulmonary disease and been cured, never, or at least rarely, take the disease a second time;” and, farther, that “inoculation possesses the power, at least *temporarily*, of preventing infection,” though it be not known for how long; concluding with a recommendation that inoculation be adopted “in every case where pulmonary disease has broken out in a herd of cattle.” Secondly, Mr. Simonds had the report of the Belgian Commissioners—one which appeared most painstaking and elaborate—by which he was instructed, that inoculation with the matter of *exudative* pleuro-pneumonia “is *not* a certain preservative against the malady;” and that “inoculation gives rise to the same phenomena, whether the animal may or may not have had pleuro-pneumonia; and that the two affections may exist together in the same individual.”

The Prussian Government, who had, at the time of the publication of Mr. Simonds' paper, not received their report from Dr. Ulrich, their agent in the affair, but which has since reached us through the French “Recueil,” and is from that extracted into our present number, have made it known, through the Dr., that the results which have come to his knowledge in the course of his inquiry, are not of that character which appear to him to warrant him in giving a *definite* opinion on the value of inoculation for pleuro-pneumonia.—  
*“Tous ces resultats, basés sur l'ensemble des inoculations qui sont parvenus à la connaissance de M. Ulrich, ne lui paraissant pas encore de nature à lui permettre de se prononcer d'une manière définitive sur la valeur de l'inoculation de la péripneumonie, &c.”*

The French Commission, holding its report still in abeyance, we have no right to anticipate it by any surmises of our own as to which way it is likely to turn. We shall only here remark that, on the part of their veterinary organ, the ‘Recueil,’ there has as yet been manifested no sign of

declaring in favour of Dr. Willems, notwithstanding his observations and experiments have found free circulation in that journal.

Our own—or those which will be received as our own opinions, contained in Professor Simonds' 'Second Report,' published last month by us—comes nearest in accordance with those of the Belgian Commission. In Professor Simonds' view of the matter, the "protection" ascribed to inoculation is "more apparent than real," and "results mainly from simple local irritation." For which, as well as for other reasons, the Professor is "content to remain among those who do *not* advocate the system." Pleuro-pneumonia when occurring in an inoculated animal, is in no way lessened, either in its severity or fatality, by the inoculation of that animal with the so-called special virus of this disease. On this point there seems to be no diversity of opinion. "Belgian, Prussian, Dutch, and English investigators agree here." Inoculations, to insure inflammatory action, must be made by *deep* punctures, which even then amounts to no more than *ordinary* irritation, the same as medicinal agents would produce, acting no otherwise than as "a simple issue," upon which its asserted "security" in part depends; and that pleuro-pneumonia occurs in spite of this so-called "successful inoculation," proving "equally rapid in its progress, and fatal in its consequences, in an inoculated as an uninoculated animal."

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BY the decease of Mr. BRANSBY COOPER, which is announced to have taken place, suddenly, at the Athenæum Club, the veterinary profession have lost a good friend and a medical patron. Many a veterinarian's diploma bears his signature; to most veterinarians he was well known; to all, the revered name of COOPER is everlasting. At this late moment, we have only time and space to add, concerning this once eminent and estimable, now departed man—*Requiescat in cælo!*



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ON THE CONFORMATION OF HORSES WITH REFERENCE  
TO THEIR FEET, AND TO SHOEING.

By J. T. HODGSON, V.S.

“*Veterinary Student*.—The college has ordered the heart to be on the right side.”—*Play of the Poor Gentleman*.

THE Emperor Charles the Fifth found out he could not make men think alike, so he tried to make watches keep time alike, and failed. He then shammed death. The horse's foot is more complex mechanism than a watch, inasmuch as it is animated nature. Well, experienced generals have invariably been students of nature. I have nothing whatever to do with the subject of shoeing cavalry horses now, but I have been told that “facts published in your Journal are public; opinions are persons,”—upon the former, I may, I believe, comment without fear of incurring the displeasure of any one.

In the early periods of the world, generals of cavalry were obliged to *wait* till their horses' hoofs grew. Strange! They could not order nature, even, in a horse's foot; neither will the ablest generals attempt it. The Emperor Napoleon studied the climate of Russia, yet nature helped to ruin his army. The little Napolitan high-hoofed horses, only, formed his body guard on his return. His own *flat-footed* body-guard horses were, where lawyers place a man, in Latin, when he does not appear in court.

I recollect, in Sir John Moore's retreat, the mules and my own pony could travel with ease without shoes; not so the heavy fore-quartered horse, and when he lost a shoe there was no time to put on another of any kind. The forge-carts with the farriers' tools were there, but not the *using-up* horse-shoe of London forges; if it was required, a shoe had to be *altered*: was there time for this? No. The park of artillery and *waggon train* were in advance, and reached Betanzos together. Nature had nearly done us all up. What became

of the forge-carts belonging to the regiments in the rear? Were the shoes made, and altered, &c.?

Perhaps Messrs. Field, Turner, or Mavor, might be able to answer the questions. The *Indian* troop farrier carries tools and shoes in a *haversack*, he does not require a *forge cart*, or *patent forge*.

The late Professor Coleman used to say, "if any credit was due, it was in the application of, not the form of shoe." He endeavoured all in his power to *induce* his students to think like him on the physiology of the foot, and the principles of shoeing horses.

His doctrine was founded in nature, and it was always his object to place the foot, if he could, under natural circumstances. Some of us, who were practical men, did not agree with him as to the mode of carrying this out in some cases, but upon the whole he was right. Showing the base of the hoof, he said, "You see some parts are projecting, as the lowest edge of the crust and bars, at the points of the heels, also the frog; the sole is concave. Now parts that project, we know, were intended to take bearing on the ground in the first instance, while those that are concave take bearing as the parts recede, less or more, and as the nature of the ground admits of it. Every time the foot is put on the ground, the navicular bone descends, the surrounding soft parts are condensed by the pressure of weight, and, if this is *light*, the hoof *hard*, *strong*, and *non-yielding*, the sole *arched*, and not *depressible*, and the surface upon which it is placed, as the ground, is *hard*, or in the application of the shoe, descent of parts is thereby prevented, the soft parts meet with immediate counter-pressure from below, the pressure and counter-pressure are *equal*, as in horses' hind feet, and in light horses' fore feet; the sole does not descend, but remains concave, and the crust is not expanded." In horses' hind feet as well as in fore feet of this description, lameness notwithstanding seldom occurs. It is the same with ponies, mules, and asses. What? bring in donkeys? I am not inclined to be jocular now it has come to this, it is too important a subject. Expansionists and non-expansionists, as they are called, have been brought into court, under the winding-up act, I suppose. I read in your Journal, scientific shoeing was buried; not so, it appears it is left an open question still; I thought I was like the nigger who said, "me cock my legs now, and let time pass me." Not so; on the contrary, if the pressure of weight is *heavy*, the hoof *soft*, *weak*, and *depressible*, the surface upon which it is placed *soft* and *yielding*, as marshy ground, or, in the application of the shoe, the bearing

is on the crust only, or the heels are sprung either with a plain, open, or bar shoe, the sole will descend and the crust expand, and though this is not sometimes *visible*, yet does it happen, by gradual growth, till the character of the foot is completely changed; the degree of pressure of weight is, in these instances, greater than the counter-pressure, that is, the pressure and counter-pressure are *unequal*. A flat sole, low heels, and declined crust: horses with such feet are *most liable* to lameness, and this descent of the sole and expansion of the crust continue, till the horse is *used up*. No respite is allowed.

The London farriers adopt the method of shoeing, and the shoe, to enable these horses to go, *but only the quicker to the knackers*. They are something like Shakespeare's apothecary, "Their poverty but not their will consents." They know very well if they do not make the horse go, the horse will be taken to another forge. Are all the feet of her Majesty's cavalry horses in this state, to require the *using-up* shoe? When a horse's foot is in this unfortunate state, the *sole has sunk half, in many cases more than this*, from what it is in a hind foot, or a light horse's fore foot, which is not so subject to lameness, nay, it is very seldom that horses are lame in the hind feet. Well then, any one would suppose that it is best to *counteract this tendency to descent of sole and expansion of crust*, and that it should not be *induced* by the London *using-up* shoe, and the *fear of loss of custom*, from a horse becoming lame, by pressure on the sole. Pressure on the *crust* at the heels is just as likely, *more so* than pressure on the sole at the toe, to produce lameness, for if you bore a hole with a gimlet at the heels, it is opposite the sensible foot, but if you bore a hole in the sole at the toe, it is not opposite sensible parts. But—what is the *use of your arguments* against the *experience of men of such repute*? Sir, I have respect for these gentlemen, but allow me to say, they have never practised any other method, for fear they should lose their dinners. I and many others have not been afraid of losing our dinners, therefore have followed just the contrary practise, with equal success, at all events: we have *nature* with us. They live in London, where everything you do *must pay*. Her Majesty's cavalry is not a *commercial affair*, required to keep time over London stones, or on the road. "They must needs go whom the devil drives." Cavalry in general drive the devil, there is the difference.

In *The Veterinarian* for April, 1850, pp. 198, Mr. Reeve has shown a woodcut of the section of a horse's foot, the sole of which has descended half way to flatness; not only that, he

found by having the bearing of the hoof on the shoe, by the crust only, he could produce this very descent of the sole and expansion of the crust which are so *detrimental in changing the form of the hoof*, from the high concave sole and upright crust, to the low flat sole and oblique crust; and as a corollary, he calculated the degree of descent and expansion in this particular case.

Mr. Gloag, on the contrary, in all his experiments supported the sole, (vide woodcuts, pp. 197,) under which state the sole did not descend or the crust expand, and the *detrimental change in the form of the hoof*, from the high concave sole and upright crust, to the low flat sole and oblique crust, does not happen. The horse, therefore, will *last longer*, be of *more service* to her Majesty, who is not obliged to *use up* her cavalry horses to get her dinners out of them; and if it should again come to the pinch, they would *have hoofs* to stand on, and not be like Mr. Reeve's horse, require the *using-up* shoe, when, as in Sir John Moore's retreat, there may be no time to apply, much less to seat it. Then you deny the utility of the descent of the sole and expansion of the crust? It does not necessarily follow, because the sole descends that the crust should expand, since the cleft may be narrowed instead, as in shod feet: the frog only may descend, as in Mr. Gloag's experiments. I believe this to be the solution of the mystery, of expansion or non-expansion in the hoof of a horse, and that the former is detrimental, and the latter advantageous. I have *observed* this to be the case in India, the south of Europe, and even in the north of Europe; but in England, where the advice of Horace only is followed, "To make money if you can honestly, but still to make money," the case is widely different. The use of the hoof is to be *hard, strong, and unyielding, and concave at the base*. Not to be *soft, weak, and yielding, and flat at the base*, for the *more it is so, the more useless it is*—incapable of supporting the weight of the horse, much less an addition of 18 or 20 stone on his back. Anything therefore, that, instead of keeping it in the former state, *induces* the latter, is *injurious*. Oh! but I must have the use of my horse. Well, you shall have it, only try the non-descent and non-expansive system, instead of the descending and expansive one. I assure you, from long experience—I don't want you to believe me when you can try it,—try it fairly,—give your horse a chance of not being *used* *p* so early, you will consequently be money in pocket.\* As to cavalry horses, I have nothing to do with them. The gentlemen who have to report upon it, will no doubt do so

\* Three months is too short a period.



fairly, but, "It is far more difficult to observe correctly than most men imagine; to behold, Humboldt remarks, is not necessarily to observe; and the power of comparing and combining is only to be obtained by education. It is much to be regretted that habits of exact observation are not cultivated in our schools; to this deficiency may be traced much of the fallacious reasoning, the false philosophy, that prevails." Except Russian, I have *beheld* all kinds of cavalry manœuvres, I have never *observed* them; "the power of comparing and combining is only to be obtained by education." I am neither civil nor military; sketch me, and I should appear very like Uncle Tom's picture, with your journal in my hand, as hopeful a case; my body might be ordered, the mind would remain as it is on this subject, in which, I beg leave to offer to your readers these *observations*. If my reasoning on which is unsound, your Journal, I know, is open to any one who may wish to show where it is false. Be this as it may, let them bear this in mind, that every one who has attempted uniformity in shoeing horses has invariably *failed*. It has been "more honoured in the breach than in the observance." The late Professor Coleman said in his lectures, "The principle of shoeing horses had for its basis the physiology of the foot," which, neither the desire for military uniformity, nor the cupidity of capitalists in the private commerce of the world, *can ever change*, "the practise that will do for A or B, will not for C or D;" and I deny with him, that uniformity either in the army or private forges is practicable. It is more so in the army than in private forges, where, from the cupidity of owners of horses, it is impossible. Although Principal Veterinary Surgeon, he never thought of uniformity, much less of ordering his students to *think* like him. He said, "I will not be President of the Veterinary Medical Society, because I should be a restraint on you; I leave you at liberty to comment on my theory and practices."

In *The Veterinarian*, No. 50, for February, 1852, p. 69, I read, "The generally received opinion in this country has been, the alternate expansion and contraction of the base of the foot; until of late years the London lecturers, together with a few Army Veterinary Surgeons, have assailed this long-established theory, and denied the expansibility of the general surface of the foot." The writer might have believed this, that it happened in the riding school, and was observed by the late Strickland Freeman, but others knew that on hard surfaces it did not happen, but just the contrary, so as it was never established—we had nothing to assail. Experiments proved that the one or the other depended upon causes I have before

stated; and even if such had been the case, what is the use of

“Convincing men against their will,  
To be of the same opinion still.”

The *science* or abstract consideration of the subject is lectured on in our veterinary schools, the *art* is repudiated as derogatory to the Veterinarian. It is not as with civil engineers, who are art workmen. The remedy for this has been pointed out by the Editor of *The Veterinarian* (whose experience cannot be doubted), in July, 1852, No. 55. The Commander-in-Chief can extend the boon of a commission to educated deserving farrier-majors: the fees for admission to the Veterinary College, and leave of absence to attend, being granted. As to his having the *privileges* of the chartered body, these seem very like the Town Lots of the little Frenchman, in Chambers's Edinburgh Journal,—Three gentlemen, “by Shrewsbury Clock,” having had to take the water off their Lots themselves. Mr. A. Cherry has explained that the intelligent farrier knows what the veterinary surgeon should know; well, secure this advantage to the Army by these means. As to uniformity, the schools know they would fail at this; so scientific shoeing was sent to sham death, like Juliet in the tomb of the Capulets. The uniform death-blow has fallen upon practical men, who, whatever their preconceived notions, least deserved it. If their notions were considered incorrect, why did not the schools institute direct experiments for the *observation* of their students, as was suggested? They were informed what a veterinary surgeon ought to know who enters a regiment: this he could never know but by dint of *observation*. Lectures often go in at one ear and out at the other. It is not possible, in a free country like England, to give an education to veterinary students as in France. If young Hopeful will not be a farrier, and it is a *sine qua non* that he must be one, to be Veterinary Surgeon in the British Army, the sooner the profession know it the better. It certainly is not required in India, where farriers even do not shoe the horses; but the natives, who in my time practised uniformity, both in Irregular and Regular Cavalry, but then the climate, state of the roads, and the hoofs, do not prevent; but in mid-Europe it is very different, and under the different treatment of horses' feet, whether unshod, or shod by the German, French, or English methods of shoeing, the detrimental descent and expansion of feet alike happens, as the treatment more or less *induces* it.

The late Professor Coleman used to say, “Where young stock have light fore quarters and high hoofs, they should not

run on high grounds, and others with heavy fore quarters, inclined to low heels, flat soles, and oblique hoofs, should not be put into marshes, or wet straw-yards. This is not attended to: the breeders rear horses as cheap as they can, to make money, they care nothing about the feet. The most talented veterinarians or most intelligent farriers, can merely palliate the evils thus produced, by learning their business, to make the horse go; the ultimate consequences, his being *used-up* is nothing to them, any more than the breeders: this is the true state of the case. It is true, physiology is the basis of shoeing; but money, often a good, and too often a bane, knocks physiology out of the heads of veterinary surgeons; neither they nor farriers, who can read, would buy a penny number on shoeing horses, let the practical directions be ever so plain and illustrated, because it is unfortunately considered only *handicraft*. As long as a man can *fit* a shoe easily to the horse, anything else is considered by them as pure moonshine, not tending to get money, but so much time wasted. All parties concerned with horses are to blame, and to whose cupidity horses are victimised. It is only in mid-Europe this happens. The late Professor Coleman was so well aware of this, that he laid it down as “a *principle*, that the crust only should bear on the shoe;” that is, he taught his students how they were to get their daily bread, in *making horses go* for the time. You understand, gentlemen, cut you must, “The definition of a principle is, that it admits of no deviation.” What he meant was, to impress on them the necessity of making *horses go* that would daily be brought into the forge with *thin flat soles, low heels, and oblique crusts*, or they would lose custom; for often would he, in the course of his lectures, upset this principle; he said, “the shoe may bear on *the sole* at the toe with *advantage*, for it is not opposite the sensible foot, when there is plenty of hoof.” Again, “for the recovery of *flat soles*, he recommended *support all over the sole*,” again, when there was danger to be apprehended from concussion against the crust at the heels, the *very part, the crust*, that he had said, as a *principle*, should *only take bearing* on the shoe, he recommended to be *sprung*, by his method of applying the bar shoe, and if any shoe he said would do for all horses, it was the application of this; but as it was only used in these cases, the public would not allow its general use: besides, it was not *commercially profitable to the farrier, the ruling principle with them*. Now they might have taken the advice to *always spring the heels*, instead of which, they only do it with horses that go tender; or for dealers, who take care that horses shall not go so, till safely out of their posses-



sion. I fear sir, I have trespassed on the patience of your readers. I would not have done so, but for the importance of the subject. I have only two things more to notice. I read in your Journal for September and October, 1849, Mr. A. Cherry's practical observations, and for whose opinion even I would have respect, and does he attempt at pp. 502, 503, 571, or in April, 1850, p. 800, uniformity? No. He knew better, and so do I; therefore I must cordially agree with him in his practical observations, that it depends entirely on the state of the horses' feet, in what manner they should be shod. A horse-shoe certainly admits of no redundancy. If I had to get my bread as master or art workman in a London forge, I should just do as others do similarly situated; but with cavalry, I should vary my practise, if I was allowed to do so, according to the *kind* of regimental horses I had to practise on, and the *country* in which I might be situated.

I recollect seeing English farriers bungling at shoeing mules in Portugal, which I saw the Portuguese shoe with ease. I did not then think, that in after life it would be my fate to see the hoof left strong, the sole pared flat, and the thin Asiatic shoe laid flat upon it, without injury to the feet, even without temporary lameness, as is done by irregular cavalry in India, and, except in the use of the German shoe and nail, by regular cavalry: uniformity was practised in my time, as regarded leaving plenty of hoof, and driving the nails low and obliquely outwards. I am sorry to say, this cannot be practised with uniformity in mid-Europe, and least so in England, from causes stated.

In 1825, the late Mr. Goodwin showed me a shoe the then Master of the Horse had selected for use on the fine large horses belonging to His Majesty. I should not have been afraid to have turned it upside down, except when the horse had a thin sole. Now I do not know how many changes of ministers there have been since, or their denominations; but this I know, the Royal horses have had the *infliction* of the following horse-shoes,—Tory, Whig, Reform, Conservative, Peelite, Free Trade, Protection, but not Radical, that would be too vulgar for royal horses' feet: so much for shoes. As to feet, the high foot of the zebra may be ruined if you expose it to the causes I have stated. Any one might have seen the difference in the feet of the young and old zebras in the late Mr. Wombwell's menagerie. The sole of the latter had descended to flatness.



FRIGHTFUL WOUND INFLICTED BY A HORSE, OF THE  
13TH LIGHT DRAGOONS, ON HIS OWN BODY, ON  
THE OCCASION OF THE LATE ENCAMPMENT ON  
CHOBHAM COMMON.

By W. PERCIVALL, V.S., 1st Life Guards.

THE subject was a valuable bay gelding, about 7 years old, belonging to the 13th Light Dragoons, which was brought over in a van to Windsor Cavalry Barracks, in consequence of having, on the night of the 15th June, 1853—the day after the camp was formed—extensively mutilated his sheath and abdomen by being across one of the hooked picquet posts. The horse did not arrive at Windsor until the middle of the night of the 16th, so that I did not see him before one o'clock of the morning of the 17th, nearly two days after the occurrence of the accident. The wound then presented a large open chasm of lacerated integument involving the sheath, with the abdominal parietes all around it, extending backwards into the perineum, and forwards as far as about half way to the umbilicus. Its boundary limits consisted of pendulous lacerations of skin, having very irregular, jagged or fringed edges, from which had evidently been streaming blood, though they now showed but sorts of icicles of blood which had become congealed as they dropped down from the tattered shreds of the mangled skin. So awful and hopeless had appeared the condition of the animal to the officers at the camp, that it was deemed advisable to put him at once out of his misery, on the spot; Mr. Legrew, however, the Veterinary Surgeon of the regiment, prudently suggested that a trial should be given to the case, and that this might be done by sending the horse over to Windsor Barracks, and placing him under the care of Mr. Percivall, the Veterinary Surgeon of the First Life Guards.

When I first saw the horse, finding that the hemorrhage had ceased, and that there was nothing requisite to be done at the moment, I ordered him into a box, and had his head tied up for the night, so that he might eat, if inclined, a bran mash, but not be able to lie down or bite himself. On visiting him the following morning, I found him tranquil and depressed from the accident, with a weak and not quick pulse, and a mouth rather cold than hot, with cold legs and body. The wound, which from its extent and lacerated character had a very formidable aspect, seemed, from its jagged and still in places bloody complexion, to be likely to take on sphacelous action, unless its apparent debilitated power was aroused and

made to assume an inflammatory and healthy tone. These considerations induced me at once to resolve on a generous diet, with stimulation of the wound; for which purpose, after hot fomentation, I dressed it with *Ol. Terebinth.*, undiluted, without, on the part of the animal, the slightest flinching or symptom of feeling. I now measured the wound, and found it about fifteen inches in length, from behind forwards, and half as much in breadth, with depth sufficient to bury a probe a foot long. For the first three or four days, hardly any change was perceptible in it; though afterwards came gradually over its edges some signs of inflammation, which was succeeded by large sloughs, principally of cellular tissue, from its interior, having so offensive a character that on some occasions I changed the dressing for chloride of lime. About this time the animal's dung, though it remained without fetor, became very dark, and was voided in small balls. This led me to venture on some moderate doses of purging mass in combination with diuretic mass; though, fortunately, there had been all along no difficulty or complaint about his staling. This medicine was followed up by tonics; notwithstanding the appetite had been pretty good, and was now much amending. The sloughs in time becoming decreased and less offensive, was succeeded by decided inflammatory action, which had brought with it sensibility of the parts within, so that, although an excellent tempered and patient horse, he no longer bore dressing so quietly as before, but on occasions required twitching. A cradle was used also now, though afterwards dispensed with. Change of action in the wound called for correspondent change of dressings: to detail however in what this consisted would have no useful purpose. Let it suffice, therefore, to say that, from this time, all went on as well as could be desired. Nature, as usual, conducted her operations of healing with wonderful and admirable effect. Not only was, by degrees, the loose and long and jagged skin drawn up into its place, with its edges rounded off and contracted, but the chasm itself was by degrees filled up with granulations until the probe, which had become quite lost in its meanderings and depths, could scarcely be made to enter at all. At one time, it seemed impossible almost to imagine how nature could right herself; though she eventually did so, and most beautifully and effectually in the end accomplished her work of restoration. So that I may here finish the history of the case by saying, that, on the 7th September last, nearly three months after the accident, the horse left Windsor Barracks for Birmingham (where his own regiment is now quartered) as well as he originally was

at the time he entered Chobham camp. The only remains of the wound, or rather place where it had been, to be seen was a small oval tumour about the magnitude of an egg, upon the side of his sheath, where the testicle (if he had one) might have appeared, which was puffy and cellular, and evidently easy of solution on removal; and a little furrow, still slightly raw from the friction given by the tumour rubbing in action against the side of the sheath.

Two points in practice may be elicited from the case. One is, in such awful accidents, not to think of depletion, early, of the constitutional powers; the other, to sustain vitality in the wound itself by stimulation and excitement.

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### PROLAPSUS ANI.

By T. W. GOWING, M.R.C.V.S., Camden Town.

DEAR SIR,—Some time previous to the publication of Mr. Dycer's case in your August number, I had a similar one to contend with, and thinking that it might be interesting as showing that such cases are to be occasionally looked for, I beg to submit the following for your insertion in *The Veterinarian*.

On July 9th, 1853, I was sent for to visit a brown mare, belonging to Mr. Thomas, an extensive Timber Merchant and Builder in Camden Town. The person who came for me said, the mare was "in a very bad way," and all the history I could gain from him was, that she had "something hanging out behind." I lost no time in going, for the information I received betokened something of an urgent character. Upon my arrival, I found a protrusion of the rectum to some considerable extent, exposing the mucous coat, which was much distended with fibro-serous effusion, the size of the part being about 26 inches in circumference and about 8 or 9 inches in diameter. The mare being an unruly one and dangerous to approach, I was obliged to put the casting lines upon her; when, drawing the hind legs a little forward, in this position I made my examination. I found the parts so contracted, that she was not able to pass her fæces. I scarified the parts freely, when some blood and serum were discharged for some time afterwards. I ordered her simple enemas two or three times a day, in order to empty the rectum, and to be kept on green vetches and mash diet. After a few days the owner called to see her, and not finding any improvement he thought of having her destroyed. I persuaded him to allow

me to operate upon her, stating, I would only charge for her keep, and at last he gave me his consent. On the 16th of July she was cast for operation, and in the presence of Mr. G. T. Brown, Veterinary Surgeon, who kindly assisted me, I dissected away some considerable portion of mucous membrane and effused matter, taking up some vessels which bled pretty freely, as they interfered with my dissection. The weight of the mass when excised was about 1lb. 8oz.; this was dissected away from the other structures, leaving the muscular and peritoneal coats of the intestine free from the knife. I had also to scarify some additional portion of mucous folds of that part of the rectum forming the sphincter-ani, which readily returned as soon as the mare was allowed to rise. She was put upon the same diet as before; clysters of tepid water was administered about three times a day. No medicine was given either before or after the operation, it being purely a surgical case. The operation did not appear to interfere with her general health, but she ate and drank well, and passed her fæces regularly when assisted by the enema, which was made use of for about seven or eight days; after this period she passed her dung naturally, and in about a fortnight from the time of operating she was discharged, the owner stating he should use her as his hack.

I beg to remain, yours &c.

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### PROLAPSUS ANI.

By J. D. GREGORY, M.R.C.V.S., Bideford.

DEAR SIR,—The case of Prolapsus Ani, narrated by Mr. Dycer in the August number of *The Veterinarian*, is of itself an interesting one, and the operation, I believe, somewhat rare, at least if one may judge from so few being recorded. A vast amount of difficulty frequently arises in the treatment of these cases; not so much in the reduction of the prolapsus as in the retention of the parts after, from the great straining and irritation that follows, and the impracticability of applying and retaining a truss; for, unlike prolapsus vaginæ, we cannot adapt it to allow of the passage of the excrement.

I have had to encounter these difficulties, and have been obliged, in the end, to have recourse to the knife; and really, as far as I can judge from my experience of the matter, I should not deem it, with proper management in the after-treatment, a dangerous operation. I have very many times



operated on young animals, such as pigs, lambs, and puppies, with impunity.

As recently as the 4th of July last, I was called to some eight miles' distance from my place to see a mare who was suffering from prolapsus, and had been so for two or three days previous. She was a very fine brood mare, with a foal at her foot, and was running at grass. No particular cause could be assigned for it.

Frequent attempts had been made to reduce and retain the gut, to no purpose, by the owner and others. I found the protruding gut considerably congested and discoloured, and the mare evincing uneasiness and pain, straining to rid herself of the accumulated fæces; and in her efforts, a pellet would now and then be shot out as from a pop gun.

I washed the parts with water, and removed a large quantity of dung with my hand, emptying as well as I could the rectum. I reduced the prolapsus but could not retain it: I made repeated efforts, but as soon as I withdrew my hand, the pains would come on, and out again would be forced the mass.

I remained a considerable time, until I had exhausted all my patience; when, at length, the owner consented to the operation which I had before proposed. I did not cast the mare, but merely put on a side line, and had one leg held up, and the tail kept on one side. I took a scalpel and excised the parts level with the sphincter. Not much hæmorrhage followed; I should think altogether not more than a quart.

The mare appeared immediately afterwards much relieved. The straining ceased, and she was eager for food. I gave a laxative, and ordered her nothing but a little mash and grass. Everything went on well until the third day, when I found her uneasy and straining a little. She had been allowed to eat too much, and a quantity of fæces had again accumulated in the rectum. I removed them, and strictly enjoined abstinence from food, and to have occasional clysters of warm water. From this time nothing more was done. She gradually returned to her usual diet, and in a few days was quite restored.

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#### ULCERATED INTESTINE. BY THE SAME.

I have just seen the fatal termination of another unusual case. The subject was an aged farm horse, blind, of coarse formation, and black colour. He was observed to be unwell a day or two previous to my seeing him, which was for the first time on the 25th of July. He was now looking unhealthy in his coat; very much tucked up in the flanks;

having little or no appetite for food; great depression, with diarrhœa; the pulse small, weak, and indistinct. I gave him a dose of Ether and Tincture of Opium in thick gruel; ordered a pailful of water to be placed before him, which he drank with great avidity.

On my visit the next day, I saw no improvement whatever, and so on my subsequent daily visits. I gave an unfavorable opinion as to his recovery, and diagnosed ulceration of some portion of the intestinal tube. He continued to get weaker; occasionally he turned his head to his side, exhibiting pain, but by no means of a violent character.

On the sixth day from the first date he was too weak to stand; some blood followed the repeated evacuations; his thirst becoming more and more excessive, and his pulse all but gone. I recommended the poor fellow being deprived of what little life remained in him; but I believe nature kindly interposed and did the work herself; for I received a message the next day to say that he was dead. I had an opportunity of making a post-mortem examination, which I, of course, did not lose, as well with a view to satisfy myself, as to show my client the correctness of my diagnosis. The abdomen was the first cavity laid open. The peritoneal covering of the intestines was slightly inflamed, particularly about the large ones. The man assisting me first drew my attention to a small opening, about the size of a quill, just in the largest portion of the colon, through which a little excrementitious matter was finding its way. I at once saw it was the seat of the mischief. I had a portion of the gut removed and washed, when the internal surface presented an ulcer of large extent, full six inches long and four broad, of an irregular shape, and just in the centre all the coats were penetrated: to some extent, surrounding the ulcer, the parts were thickened by effused lymph. The *liver* was hardened and discoloured, the *lungs* congested, and the *heart* flaccid.

I have not detailed my treatment as I think it unnecessary. I used the remedies I thought applicable to the disease; but, after I had made up my mind as to its nature, of course little was done.

I had before seen a similar case, and a professional friend of mine some time since also related one to me. The great thirst, the constant diarrhœa, and the depressed pulse, with the occasional pain, were the guides to my *diagnosis*.

I remain, dear Sir, yours, &c.

## DISEASE OF THE RECTUM.

By R. BLAKE, M.R.C.V.S. & H.P.V., M.A., Wimborne, Minster.

DEAR SIR,—Should the following case prove of any interest, I should feel obliged by your giving it insertion in your valuable journal.

On the 14th of July last, a chesnut cart-horse, the property of Mr. John Carlton, of Cow Grove, aged 5 years, and of considerable value, was sent to my stable to have a dose of physic, as he seemed, as the owner remarked, “rather queer.” I observed the horse, in passing his fæces, strained violently, grunted, and seemed in great pain: the rectum also was becoming much inverted, its mucous membrane, in rugæ as thick as my wrist appeared, and were highly congested.

An examination per rectum disclosed several deep ulcerations in the floor of the rectum, in which were a few red bots, the *Æstrus Hemorrhoidalis*. The sinuses extended anteriorly between the rectum and bladder; the intestine was excessively hot, and attempts at evacuation very frequent; bowels constipated, from eating ripe vetches, with rough rusty stalks; pulse full, 50 beats per minute; straddling gait, and stamping with hind legs. Under these circumstances, and with the owner's permission, I kept him in my stable under treatment till the 17th of August, when he was discharged “well,” and fast recovering his pristine condition, although he had got excessively thin and weak for the first three weeks.

The treatment consisted in allaying constitutional irritation by bleeding, sedative and laxative medicines, opiate enemas, &c., from the 14th to the 17th; pulse then 65, and full, rolling about in great pain; venesection 6 quarts, gave an anodyne draught, and an enema with ʒij Ext. Belladonnæ, applied a blister to abdomen, which gave relief. On the 18th, an examination *per rectum* disclosed another sinus running back to the perineum; strains frequently; fæces covered with pus and streaked with blood; great fetor; horse is wasting fast. Injections every two hours of tepid water, with Sol. Chlor. Calc., this was continued in till August 3d, on which and the previous day he was more uneasy. I examined him again carefully, per rectum. An abscess is now discharging a little on the left side of the other sinus (which is filling up fast), the opening into the intestine just admits a finger, with which some solid substance, loosely attached, is discovered. The opening is dilated, and the substance removed, which proved to be the walls of an abscess, about  $\frac{1}{8}$ th of an inch in thickness, a complete bag, containing, I should think, up-

wards of half a pint of fetid pus. The injection of Sol. Chlor. Calc. was continued, and tonic medicine given twice a day, which, with attention as to diet and the state of the evacuations, have been the means of treatment up to the 17th of August, when scarce a trace remained of these formidable lesions. The walls of the abscess I have preserved; they are of a white fibrous structure. The horse is now at grass, doing very well.

I am, dear sir,  
Yours respectfully.

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### BELLADONNA IN TETANUS.

By JAMES AUSTEN, Salisbury.

SIR,—If you think this worthy of insertion in your valuable publication, and if it draw attention so as to lead to good, it will prove a great source of satisfaction to me.

I entered the Royal Veterinary College last October, and have attended one Session. I entered as a practitioner. I was sent by Mr. Moreton to Salisbury, to assist Mr. Stone, Veterinary Surgeon of this town, whose health is very indifferent, and intend, if spared, to be at College again at the opening of the Session in October. I thought this reference might be required.

I beg to remain, your obedient servant, &c.

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Never having had the opportunity before this of witnessing the effect of Belladonna in Tetanus, the following result may not be unacceptable to some of your veterinary readers.

I was summoned on the 25th of July, 1853, at 6 a.m., to attend a cream-coloured gelding, five years old, the property of Mr. Stevens of this place. The man who had the care of the animal informed me, that three weeks ago it picked a large nail up into its foot, near the frog. It was taken to the smith's shop, and the nail was withdrawn by the foreman of the shop, who undertook to "cure" him. After attending to the animal's foot a week, he pronounced it "well," and it was turned into a field near this town. I found him on my arrival in the middle of the field, with ears and tail erect, nostrils dilated, jaws unnaturally fixed, eyes drawn into the sockets, squinting outward, the nictitating cartilage being thrown over the cornea, and the regions of the neck, croup, and thighs, as hard as marble. I had the horse led gently from the field,



and placed in a loose box, my object being to keep him in a state of quietude as much as possible. His pulse was quick, small, and irregular, and the countenance wild, and expressive of great pain.

My first step was to have the punctured foot examined; though after a good paring of it out, I could only discover slight traces of the puncture; the place appeared to be perfectly healed. I then proceeded to abstract from the jugular vein six quarts of blood; after that I backraked him, but found very little fæces in the rectum, and those quite hard and dry. I succeeded in administering the following medicines,—Sol. Aloës, ʒvj; Ext. Belladonnæ, ʒij; Ol. Lini, Oss; thin gruel one pint: I threw up an enema, composed of Belladonna, ʒij, thin oatmeal gruel two quarts, every three hours: I applied a blister over the whole length of the spine, and covered the back and loins with a sheepskin.

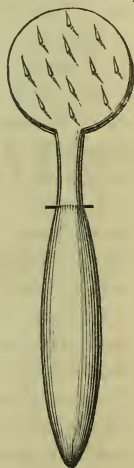
On the evening of the 27th the medicine was acting freely on the bowels, with a slight remission of the spasm. I applied a blister to the masseter muscles, and administered Belladonnæ, ʒj, Tinct. Opii, ʒij, mixed with half-pint of warm water. On the following morning (July 28th), I found the jaws a little relaxing. He sucked in two gallons or more of bran and flax-seed tea. I repeated the Belladonna and Tinct. Opii in the same quantities as the day before. He sucked in during this day six gallons of bran and flax-seed tea. On the evening of the 29th there was a slight return of spasm: it commenced by constriction of the jaws, evinced by grinding of teeth, which was again to be heard; profuse sweats bedewing the flanks, neck, sides, and interval between the anterior and posterior limbs, and by returning constipation of the bowels. I immediately administered Sol. Aloës, ʒiiij, Belladonnæ, ʒij, Ol. Lini, ʒiiij, gruel one pint; and threw up an enema composed of Belladonna, ʒij, thin gruel two quarts; to be repeated every two hours. Early in the morning of the 31st, the bowels became again relaxed, and the tetanic symptoms underwent sensible diminution; indeed every day from the 31st, amendment was visible, and since, by degrees, nearly the whole of the muscular system has recovered its normal properties. Tension and stiffness continued up to the 15th of this month in the muscles of the near hind leg: it was the *near* hind foot which was punctured, and the constrictor muscles of the jaws which reacted, but very imperfectly, on the alimentary cud.

In walking him down to the field yesterday for an hour or two, he neighed and danced, and seemed all in good spirits.

## PUNCHING OFF SPAVIN.

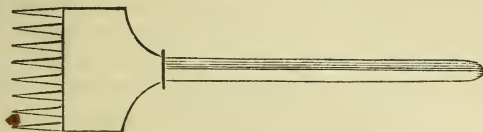
By J. HORSBURGH, M.R.C.V.S., Dalkeith, N. B.

SIR,—In old times, when the knowledge of disease was not so good as we think it now, there was a disease in the hock-joint of the horse then, and I believe yet, called spavin; at least, apart from the scientific appellations of some of our learned professors and teachers, who would wish to increase their reputation among the ignorant, by terming stringhalt, *chorea* instead, *the check spavin*, *bog spavin*, *diseased enlargement of the bursa mucosa*, but not unsoundness, &c. Spavin is now known to be an ossification of the hock-joint, caused by some injury to the small bones or ligaments connecting them in that joint: nature throwing out a new deposit of bone whereby the injury is intended to be made up in the same way as a broken bone is united; but with this difference, that the joint in all cases becomes partially, and sometimes completely, fixed. Formerly, it was supposed to be a something growing on the joint outside, and if once that something got time to creep over the joint the horse would go sound. Hence came the most likely means of cure, which no doubt its inventor would get credit for, viz., punching it off. For this purpose, an instrument was used made of wood, the handle about six inches long, the head round, and about half an inch thick, into which head was fixed about a dozen spikes of iron, three fourths of an inch long. On its being used, these spikes were applied to the part and hammered into the joint with a wooden mallet. This “punching off” spavin was frightening it away; no doubt it would have little chance of appearing there again with such treatment.



When attending the classes in Edinburgh, Mr. Dick used to show us the instrument, and occupy nearly a lecture in pointing out its absurdity. Now, it seems things have taken an opposite turn; some person must have agreed with Mr. Dick that it was absurd; that it was bad practice, likely to make the cure worse than the disease; he has seen some entirely new light, and instead of the old spike-headed wooden instrument and mallet, he has invented a new and more scientific one—the pattern of which he must

have seen in some saddler's shop—an instrument of steel with an iron hammer: these are now sold to the practitioners who wish to use them, by our surgical instrument makers in Edinburgh, but could be made, if required, by any other. I have not heard there is any patent for them. This is their shape.



Mr. Dick's Spavin Punch.

This instrument, and the way to use it effectually, has been for some years past a subject at the Edinburgh College, occupying two or three lectures, and is now by some parties getting into practice with an effect which the following cases will show.

About two years ago Mr. M'Ritchie, of Whitburgh, had a very fine mare slightly affected with spavin. In passing that place one day I was asked to look at her. My opinion was that if she had been neatly fired, and had laid off work for six months or so, she would have likely got quite well, and be little or nothing blemished. Mr. G. Houston, Veterinary Surgeon, a practitioner at this part, lately employed as a smith, sharpening colliers' picks for the Marquis of Lothain's gallery, at Easthouses, near this place, had gone to Edinburgh three or four times a week for part of two winters, and got a diploma. Fresh from the "College," with all the new improvements, he had got Mr. M'Ritchie to believe he could punch off this spavin in three weeks, the mare not being required to be off work. No doubt this was a great improvement; the cruel practice of firing entirely done away with, and work continued. The best of all, the mare was to work during the cure. None of us old pretenders could come up to that. Mr. M'Ritchie swallowed the bait. The spavin was punched; but, as Mr. Smeton, Veterinary Surgeon, Pathead, who was called in to see her some months after, wisely remarked, "It was like punching *on* a spavin." The mare fevered under the operation, was unable to rise, the skin began to be destroyed on all the prominent parts by lying and sprawling under the torture; she had to be slung; and after nine months of treatment, the mare was able to do some work with a leg improved to *nearly three times* its thickness, and a valuable animal reduced till she is not worth one fourth of her value.

Following this, the Marquis of Dalhousie's farm manager, Mr. Main, purchased a very fine looking cart-horse at a sale of horses belonging to the Earl of Zetland. No doubt, the horse looked well; but Mr. Main was no judge of horses. He had been bred in the army, I think in the regiment of the late Earl of Dalhousie, where he had got promoted to full sergeant; Mrs. Main had been nurse to the present marquis, and Mr. Main had been brought home with a pension, to attend on the late Earl in his dotage. After his death, he was retained keeping the castle when the family did not live in it, and since has had the looking after the farm, little or none of which is now in cultivation, but is grazed by sheep, &c. Mr. Main, like most of his kind, though totally ignorant of the proper management of horses, sheep, or farms, can no doubt look assuming airs which would make a stranger think the Marquis was his footman, when they are both seen together. He applies martial law to all his subordinates with a rigor showing no fear of control, as he has no superior officer at hand; and as I mean to show, he applies the same rule to the beasts. In buying this horse at Mr. Saig's bazaar, in Edinburgh, he knew, no doubt, a horse from a cow, by the difference of tail and the absence of horns, but he had no knowledge of legs, or lameness, or spavin, or sales. Some person told him, after the animal had been bought, that he was lame; so he went to the Earl of Zetland's manager to have him warranted; but, oh! that was another story, *he* was a better judge, and did not warrant horses *after* they were sold. The horse was brought home, no doubt, lame enough. £45 had been paid for him; and I was sent for to examine him, as I had been always employed in attendance and purchasing horses for the Marquis. He was very bad of spavin, and with that affection worth about £15. He had to be fired in both hind legs. After a considerable time he got quite sound, and remained so, working on the roads for at least six months, when he got a strain of the flexor tendons of the off hind leg, and had been worked some time with that when I was called to see him. I ordered poultice and rest; this he got from one Saturday till Monday, and was put to work. A few days after, I called to see him, and urged that he should get rest: but no! I was told *D—n him! I will make him work.* I did not see him for about a month, when, meeting his driver going to work, he asked me what I thought of him: he was "so lame he could scarcely put his foot to the ground." Like a fool, I said what I thought, viz. that "it would have been a disgrace to have seen a horse so lame going in the cart of a Gilmerton coal-carter—far more so in seeing



him working for the Marquis of Dalhousie; further, that Mr. Main ought to be punished for cruelty to animals," which I have no doubt he told him. The poor animal was drawn on till he could actually go no longer, when his driver asked Mr. Main if he would go for me to see what could be done. My firing one horse's legs, dividing the nerves at the fetlocks, or what is called performing neurotomy on another, seemed to have hurt the feelings of his office keeper, Mrs. Inglis, (he keeps an office at the farm about 200 yards from his own house,) added to which, she had been told I said *he* ought to be punished for cruelty to animals. I was at once condemned as the most cruel, and—the man was told by the parties—"they had had plenty of me." He treated the horse for some time himself, with Lieutenant James's blister, to the spavined hock, not to the part where it was lame, till tired of that, Houston was sent for with his punch. It is not less than eighteen months since this took place. In that time he has been punched *three* times, and every time the spavin is getting much larger; he has been idle, and now likely ever to be so; he was sent last spring to Coulston, an estate belonging to the Marquis, near Haddington, under pretence to be tried by Mr. Cockburn, Veterinary Surgeon, Haddington, (Mr. Cockburn being long before gone to Glasgow,) but actually to see if they would work him to death, or kill him out of reach of Dalhousie. But, no; they sent him back living; he is again being punished; and there he stands a living proof of ignorance and stupidity, with a loss of £45, two years' keep, and expense for Mr. Main's quack medicine, veterinary surgeons, firing, blistering, medicine, attendance, and punching!—how much I do not know.

I am, &c.

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#### MR. HUDSON'S CASE OF A COW.

(Continued from p. 437 of *Veterinarian* for August.)

THE cow was suffered to live until the 2d of July, being about a fortnight from the operation. The wound suppurred and progressed as well as could be expected; but the post-mortem will show that there was something worse in the back ground.

*Post-mortem examination.*—On reflexing back the abdominal muscles, the peritoneal covering was seen to be studded over with warty excrescences, varying in size, as also was the

abdominal surface of the diaphragm. The omentum was completely covered with them, these about the size of small shot corns. Liver, not half the usual size, with scarcely a sound spot in it, being filled on all sides, and through the structure, with tubercular abscesses, most of which looked ready for bursting; gall bladder empty; kidneys pale, and half of one quite hard, more like cartilage than anything belonging to a kidney; bladder healthy; uterus, from the os uteri to its termination at the ovaries (no vestige of an ovary to be found), a solid mass of cheesy matter, the coats thinned, and closely adherent; mesenteric glands enlarged to the size of an egg, some larger; mesentery clear from the granular deposits; stomachs studded over externally, similar to the diaphragm; thorax, the pleuro-pulmonalis and costalis, adherent by means of numbers of the same abnormal growths; on the thin lower edges of the lungs a solid mass of them, some inches in thickness, firmly attaching the lungs to the sternum; superiorly, between the lobes, in a line with and over the œsophagus, a long large abscess, and other smaller ones, which made the lungs look to consist of three lobes,—such was its size; the parenchymatous structure of the lungs pale, but free from tubercles; doubtless the abscesses were quite sufficient to account for the weak continual coughing; the pericardium adhered to the surrounding lungs, and most firmly so to the heart, so that it could not be separated even with the knife, and by the apex to the sternum; superiorly, a fleshy hard tumour, perhaps large enough to weigh 1lb., pressed upon the auricles, which were small; cavities of the ventricles also very small, and on laying them open the knife stuck fast into a piece of bone; the heart was completely nailed down to the sternum, first by the pericardium, then a mass of fleshy excrescences, and the lungs. The wonder is, not that the poor animal could not recover, but how, in her emaciated state, and after nearly bleeding to death, she could survive the operation at all, live near a fortnight, and look like living some time longer.

I am, dear sir,

Yours, &c.

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## ILL-USING HORSES.

*To the Editor of 'The Veterinarian.'*

DEAR SIR,—Allow me to draw the attention of your readers to a subject, which, although at first sight may appear a very unimportant one, yet, on a second view, seems to contain largely the tendency to mischief and misfortune; and the veterinary profession, I think, may safely be looked to, as likely to exercise a considerable influence in obviating the evil. I allude to the practice so common at horse-fairs, dealers' yards, &c., of rattling a stick and hat together, with the avowed object of frightening horses. It seems very questionable whether it be judicious, or the contrary, to teach a horse to be afraid at all; but, to associate in the animal's intelligence, terror on the one hand, and an article which may accidentally at any time create terror, on the other, appears very thoughtless. I have known many a case of tumble and run away, from just so *simple* a thing as a bat coming clattering to the ground. Not many horses will *stand it*. But what else can we look for? The last time they heard the sound, it, in all probability, was in connection with whips and sticks, fright, &c.

I have frequently heard it very gravely recommended by very knowing horsemen, to under-feed horses that are difficult to break. I suppose, on the presumption that hunger will tame a lion. I doubt if mere *hunger* ever tamed anything; starvation might, but even then, the tameness, apparently, is more the result of the subsequent kindness than the previous cruelty. From a trial of my own, I infer the practice to be a very bad one. That "an angry man is a hungry one," is proverbially true, this being one of the laws of organisation; hence the soundness of British philosophy, in celebrating everything with a dinner; and I can see how an organisation, disqualified to perform well the alimentary functions, should be attended, as often as it is in horses, with a fretful, bad temper, *vide* what we call weakly animals.

Horses, however, on the whole, get pretty severely punished for being made this way. Others of them, from careless breaking, riding, or disease, get a habit of stumbling, to which the punishing is applied very often as a remedy; and, although I never saw it do any good myself, and perhaps nobody else ever did either, yet I suppose it is impossible to allow such aggravated disobedience to go unpunished.

Horses frequently come under the rod for shying, as if

they had no right to be frightened without leave. It seems hardly fair, but opinions differ. He may be going past a lime quarry, for instance; there is a noise, he gets uneasy, and then punished, to get more uneasy still the next time he sees the same object, and a further punishment only settles him more firmly in the belief, that there is some unfortunate connection between a quarry or animal leap and the whip and spur. I have every faith in the efficacy of kindness, and none whatever in cruelty. This, however is at the consideration of your readers, for their own individual adoption as a principle of action in the treatment of animals.

I am your very obliged servant,  
William Gavin.

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### SPASM OR CRAMP.

By J. R. DOBSON, M.R.C.V.S. Kettering.

SIR,—Believing that cases of spasm of the voluntary muscles or “cramp” are, in the horse, of somewhat rare occurrence, I am induced to send you the following case.

On the 21st of July, I was requested to examine a well-bred hackney mare, the property of a gentleman in this neighbourhood, reported to be excessively stiff and lame in the near hind leg. On examination, I found the limb abducted, and so stiff as to be absolutely incapable of being flexed in any one joint, from the hip to the fetlock; which latter knuckled over at every step the animal attempted to take, progression being almost an impossibility. The muscles of the haunch and thigh were hard, and apparently swollen. Altogether, the symptoms much resembled dislocation of the patella.

Upon getting the mare out of her box, which was accompanied with some difficulty, and allowing her to stand for a minute or two in the open air, the spasmed muscles seemed gradually to relax, and in a few minutes she walked and trotted as well as ever. This amendment was, however, of short duration; she began to walk slightly lame, and, in an instant after, the limb was rigid and stiff as before. This in a short time again went off, but returned several times as she was being walked round the yard. A dose of cathartic medicine was administered, and hot fomentations applied to the limb; under which treatment, the intervals of relaxation from spasm became longer, and in a day or two the mare was perfectly recovered.

I am, &c.



## MYSTERIOUS ABDOMINAL DISEASE.

By R. H. DYER, M.R.C.V.S.

SIR,—The following being rather an unusual case, I have ventured to forward it for your perusal.

A six-years-old bay pony,  $10\frac{1}{2}$  hands high, the property of a gentleman residing here, arrived in this country from the neighbourhood of London a few weeks since, apparently in good health. It was in great condition, being very fat, and was driven in harness several times, and did his work remarkably well. About the 1st of August he was shod, after which he continued to travel well. In a week after he was observed to go lame in the *left* fore leg, which I was requested to examine; this I did, but could not detect anything to lead me to discover the *cause* of lameness. I recommended hot fomentations and rest for a few days, thinking that something definite would be arrived at in the course of that time, or that the lameness would pass off.

As the groom was walking the pony towards its stable, it became suddenly ill with colicky pains. In half an hour I saw him; the symptoms present were those of antispasmodic colic, for which I administered the usual formula, with success. The pain left him, and with it the lameness. The next day I gave a dose of physic, consisting of  $\text{ʒij}$  of Aloes, which in due course had the desired effect. On the day following there was an *absence* of lameness, and this condition continued up to the 11th, when at 9 a.m. he was brought to me, lame in the *off* fore leg. The pain he was suffering was very great, a fact that led me to examine more minutely into the state of the body, on which I became impressed with the idea that the *liver* was affected, the membranes being of a yellowish hue; at the same time there was present more disease in the abdominal cavity than I could well account for; but to state with precision *what organ* was the seat of disease was next to impossible, for it seemed that every part of the frame was more or less attacked. My diagnosis therefore was vague. I employed sedatives, antispasmodics, and other remedies without effect. The perspiration was intensely cold; it required full two hours' handrubbing by two men to promote warmth in the skin. The effect, however, was at length produced, and a remission of symptoms the result; though it lasted but a short time, when the pain and suffering became more fearful than ever. The pulse ranged to 60 and 80 beats per minute;

the respiration to as many and more; the poor animal was nursed during the day, and throughout the night; and medicine was administered every hour, all without causing any change.

12<sup>th</sup>, 5 a.m.—I saw my patient again; symptoms more violent than the day before; rigors were present; the skin however was dry. At this examination, I was led to believe that an abscess was forming internally; the pulse kept up, and there was much thirst, he drank immoderate quantities of cold water, and would play with the water for more than an hour together. Finding that my list of medicines were fast failing, I tried the use of *Plumbi Acetas*: this I gave in small and frequent doses, with water, which in a few hours gave great relief. At this time, noon, the bowels were constipated, to overcome which I administered small doses of *Ol. Lini*, in combination with the *Plumbi Acetas*. We progressed favorably with our patient up to the 19<sup>th</sup>, when I sent him home with instructions to walk him down to me daily. Still, there was something unaccountably strange in the case; the appetite all this time was bad; constipation present; unless oil was administered nothing would pass the bowels. The pony continued in the same uncertain state up to the 25<sup>th</sup>. He was led down to the stable with a return of the old symptoms, but in a worse form. The secretions had almost entirely ceased to act; the eyes became amaurotic; the skin moist and cold, &c. Matters grew worse and worse, and I allowed nature to take its course. On the evening of the 26<sup>th</sup> he died.

The following morning I proceeded to examine the state of the parts within. The intestines were very slightly inflamed in patches; upon the colon I discovered a sac about the size of a pig's bladder; I cut into it and found about a pint of dirty looking fluid; half of the sac was fleshy, and two inches thick, the other half the thickness of the stomach; it was well supplied with blood-vessels, and appeared to have been a long time growing; the kidneys seemed to have been partially absorbed; the liver was dark coloured and easily torn; the spleen darker than natural; the stomach easily torn by the finger, very pale, and almost *all* around the *cuticular* membrane, close to the junction of the two membranes, were numerous *erosions*, which were not unlike those produced by the action of Acid. Arsenios, or Hyd. Bichlor.; the lungs were congested; the heart healthy and firm; there was *no* ecchymosis in the heart; the parotid duct on the left side was obliterated at the angle of the jaw; the duct large, up as high as the gland; it held about  $\mathfrak{z}\text{ij}$  of fluid resembling inspiss-

sated bile. The sac, together with the stomach, I put into spirits at the request of the owner of the pony, to be forwarded to a friend in or near London for inspection.

The above case is not devoid of interest. In the first place, it goes to show that all lamenesses are not dependent upon disease in the limb; that internal complaints will produce lameness to a certain extent; and it also causes practitioners to hesitate before giving an opinion when asked to do so. In the next place, it proves to us that an animal will live a long time although important organs are suffering from intense disease. Should the morbid specimens undergo analysis, perhaps some light may be thrown upon this, to me, unaccountable case.

P. S.—My time is much taken up in professional business. I have but little time for scribbling, and must therefore beg you to accept any paper I hastily send you, more for your own private use than for public reading. In the infancy of our art, and to a writer upon such subjects, I have thought any paper of interest may be not altogether unacceptable. If deemed of no interest consign it to the flames at once.

I am sir, yours truly.

WATERFORD; *Sept.* 13, 1853.

\*.\* A curious case, giving rise to more conjectures than one. Perhaps, more particulars about it may come to light.  
—ED. VET.

## DISEASE OF THE HEART WITH BRONCHIAL IRRITATION.

By R. P. FOSTER, V.S. Spalding.

SIR,—If you think the following paper worth a corner in your valuable Journal it is at your pleasure.

On the 26th of August I was called upon to attend an aged grey pony, the property of Mr. Lawrence, resident 7 miles from this place, which was suddenly taken ill with apparent symptoms of colic, for which the owner attempted to give medicine; but without effect. He then got the assistance of a neighbour to abstract blood; which was done with great difficulty, the animal being very restless. The symptoms when I arrived, were—I found him frequently lying down, partly rising again, and sitting upon his haunches; but I was told he was not so bad as before being bled. Ears and mouth cold; pulse imperceptible at the jaw; loss of sight;

stertorous breathing, with a frothy saliva continually running from the nose; the heart's action not perceptible: there being so violent a commotion of the whole body with a death-like coldness gradually stealing over the system. I told the owner, it was my opinion there was a rupture of the diaphragm; and if so, it was a hopeless case, and useless giving any medicine; but he not being satisfied with this, I made an attempt to give the remaining part of the dose which was left after the first trial; but while doing so, the animal instantly fell; and having no power for some time to rise again, I waited about an hour; when on entering the stable again, I found the extremities becoming warm, vision somewhat restored, breathing less laborious, and a slight beating of the heart perceptible: altogether, in fact, appearing better, I again made the attempt to give medicine. A draught composed of Sp. Nit. and Tinct. Opii, with an alkaline solution of Aloes, was horned down; which in a short time gave much relief. In about an hour, the dose was repeated, after which he was quite relieved. Pulse now perceptible at the jaw, breathing tranquil, altogether quite improving. On the 27th much better; eats tolerably well. Gave febrifuge and slightly aperient medicines. On the 28th my assistant saw him; he was still improving; bowels acted upon. Continue febrifuge medicine. Appetite improving. Altogether so much better that the owner thought I need not see him next day. In the afternoon of the 29th, however, at 4 o'clock, he was taken with the same symptoms as before. They again attempted to bleed, but could not. I was once more sent for; but did not arrive before 11 o'clock p.m., at which time I found the symptoms as before, he frequently looking at his sides. I gave medicine as before, but he continued to get worse; and at 12 o'clock had his mouth open, frequently lifting up his head, and every time he did so there was a large quantity of white frothy liquor ejected from his nostrils, with a countenance of the most distressing character. He continued to get worse until about 2 o'clock, when he fell and died.

AUTOPSY at 7 a.m.—Internal viscera, bowels and liver, healthy, lungs enlarged, and inflated, with spume; and mostly of a pink hue, in places mottled with purple, except at their attachment to the spine and divisions of the trachea, where they were of a dark colour—I suppose from an inordinate congestion of the blood. No fluid in the thoracic cavity. The pericardium about half filled with a yellowish fluid; the membrane itself of a pinkish colour. Heart, large; right ventricle and auricle full of black blood in a fluid state;



left ventricle contained but a very small quantity of buff, and the superior part of the left auricle was much inflamed, quite of a black colour.

I might just observe that the pony was always very fat, had been in the possession of the owner for ten years, and had never been ill; but a few weeks previous to this, when coming home in harness, he seemed to be very short of breath, and unwilling to go; but after being led for a short distance he soon recovered, and afterwards continued well until the last attack.

P. S.—If you think this paper calls for a remark, I leave it with you.

And remain, yours respectfully.

\*.\* Our superscription to the case will convey our notions of its nature.—ED. VET.

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## VETERINARY JURISPRUDENCE.

### MARKET DRAYTON COUNTY COURT.

#### INTERESTING HORSE CAUSE.—*Redfern v. Hopwood*.

THIS case, which from the unusually crowded condition of the court appeared to excite a considerable amount of local interest, was tried on Monday, the 15th inst. A jury had been summoned at the request, we believe, of the defendant, who was supported by Mr. Smallwood, of Shrewsbury; whilst the plaintiff's case was conducted by Mr. Dutton, of Newcastle-under-Lyme. The action was laid to recover the sum of £50, £45 of which was the purchase money of the horse in dispute, and £5 was claimed as expenses of keep, &c., during the time it had been in the possession of the plaintiff. The amount was not disputed, and the warranty was also admitted; but it was pleaded by the defendant that the horse was perfectly sound at the period of sale. As the animal was in the town, it was brought forward at the suggestion of defendant's advocate for the inspection of the jury previous to the commencement of the trial, all of whom, accompanied by the judge, retired for a short time to examine him. We give the principal points of the evidence on both sides:—Mr. Dutton having made a few observations on the case, the plaintiff stated that he resided at Betley, in Staffordshire. In consequence of information he had re-

ceived, he went over in company with a friend, Mr. Hayward, to the house of the defendant, on the 21st of May last, with a view to purchase a horse. He was there shown a black horse, the one now in dispute. Liked the general appearance of the animal, but remarked to his friend that the horse's hocks seemed large. Saw the horse first of all in the stable, and he then had bandages on both his legs—very high up. One of the hocks seemed larger than the other—the near one was the larger. Defendant asked £45 for the horse, and plaintiff bought him eventually for that sum, receiving the written warranty now produced. He took the horse home with him, riding him a part of the way, his friend riding the other part. Went to London a few days afterwards, and on his return found the horse lame. The animal had been in the care of his nephew, Adams, and a groom during his absence, and had been examined by Mr. Mayer, of Newcastle, who considered him unsound. He then sought to return him to the defendant, who refused to receive him; in consequence of which the present action had been brought. Cross-examined by Mr. Smallwood: Rode the horse on the 22d a short distance, and again on the 23d, but did not observe him lame. Was certain that he observed an enlargement on the near hock before the purchase, and after the horse got home. It was largest during exercise and immediately after, but went down with rest. The groom under whose care the horse was left whilst he (the plaintiff) was in London had not been brought as a witness, as he had left his service.—William Hayward, the next witness called, deposed that he was a friend of Mr. Redfern's, and considered himself something of a judge of horseflesh. Saw a horse in the hands of Thos. Hopwood, at Newcastle fair, which he thought likely to suit plaintiff, and in consequence they went together on the 21st to Thomas Hopwood's in search of the horse, but found he had been sold to defendant. Then went and saw the animal at The Rowney, defendant's farm. Defendant did not appear anxious to sell at first. They told him the horse could have been bought at Newcastle for £40, and he said they must give more for him now. They bought him with a warranty for £45. Witness examined the horse very carefully, both in and out of the stable. He was bandaged up to his hocks when they saw him first. Noticed an enlargement on the place where a young horse puts out a curb—thought, indeed, that there *had been* a curb at some "*future time*;" but, looking at his age, did not think it would come against him on any "*previous occasion*." (Roars of laughter.) Mentioned

it to Hopwood, who said it would be "all right." The horse was ridden by witness part of the road to Betley the same evening, and he went lame at one part of the journey for two or three yards, but became sound afterwards. Plaintiff's nephew observed that the hocks were large when they got home.—This witness, who gave his evidence in a peculiarly pedantic and conceited manner, and could with great difficulty be withheld from making a speech in answer to every question that was put to him, and taking sad liberties with the Queen's English with the most extraordinary volubility, afforded the court considerable amusement under the cross-examination of Mr. Smallwood. He denied that he had ever been in the habit of "expounding the gospel," although he modestly admitted that he considered himself "particularly knowing"—indeed, "quite as clever as most common men;" but nothing further was elicited of any importance to the case in dispute.—John Adams: Resided with plaintiff, and saw the black horse when brought to Betley by the last two witnesses. Noticed that his hocks were large, especially the near one. Rode him several times during the absence of Mr. Redfern in London, but never observed him lame until the 3d of June. Took him on the 4th of June to Mr. Mayer's of Newcastle, and understood from that gentleman that he was unsound. He afterwards took him back to The Rowney, when defendant refused to receive him, assigning, as his reasons, that the horse had broken his knees and sprung a curb since the sale.—Cross-examined: There was at that time a little hair off the sides of his knees, which had been done by the knee-caps, but nothing more. The marks denuded of hair now to be seen on the diseased hock have come since that time.—Thomas Walton Mayer stated that he was a veterinary surgeon, at Newcastle-under-Lyme, and also one of the Examiners of the Royal Veterinary College. He examined the horse in question on the 4th of June last, and found him lame in the near hind leg. There was a curb, exostosis or spavin, and general enlargement of the hock. The curb was then three times its present size. Considered that the diseases, especially the spavin, must have been in existence some time prior to his purchase by plaintiff. His hocks were naturally badly shaped hocks—*so bad that he would not consider him sound even if no disease were present.*—Cross-examined: Gave a certificate at the time of examination, which is the one now produced. There is no mention of spavin in this certificate, although it is certainly a much more serious disease than curb. It is the most serious of all the diseases of the hock joint.

Curbs were generally produced suddenly.—John Carless, veterinary surgeon, of Stafford, confirmed the opinions of Mr. Mayer. A horse like the one in dispute had so strong a predisposition to curb that it was impossible he could do an ordinary day's work without becoming lame, and was, therefore, in his view, *always unsound*. Curbs might either be produced suddenly, or gradually, the ligaments giving way a little at a time.—This terminated the case for the plaintiff; after which Mr. Smallwood addressed the court at some length, for the defence, and then called George Campbell, a farmer from the neighbourhood of Bangor, who stated that he sold the horse to Thomas Hopwood and Robert Bowring, at Bangor, about the beginning of May. The horse was bred by witness himself, and had never been out of his possession up to that time. He had never been lame, nor shown any appearance of curb. Witness warranted him sound up to the time of sale; but did not give a written warranty. The sum he received for the horse was £32.—Thomas Hopwood, horse-dealer, deposed to purchasing the horse, as stated by the last witness, in company with Bowring. Sold him to his brother, the defendant, on the 19th, for £36 10s. He never saw any appearance of curb or other unsoundness whilst in his possession.—Robert Bowring merely confirmed the statement of the last witness; and Thomas Bowring was present at Bangor when the horse was purchased, and inspected him at the time without observing anything the matter. Francis Hopwood, farmer and horsedealer, of The Rowney, near Market Drayton, was the defendant in this action. Purchased a black horse from his brother and Bowring, on the 19th of May, warranted sound; was satisfied he had neither curb nor spavin. Rode him to Woore and back on the following day. There was a club procession at Woore, and the horse pranced about a good deal when he heard the music. It was late when he returned. Next morning he ordered his groom to wash and bandage his legs, a usual custom after work. Soon after the bandages had been put on, the plaintiff and his friend Hayward came to his house and wished to see the horse, and he was reluctantly induced to show the animal out. Hayward inspected the horse all over, and, observing two small warts on his brisket, said he had been rowelled for shoulder lameness at some “future” time; but as the shoulder was “knit again,” he did not think it of any consequence. Nothing whatever was said about the animal's *locks*. No *curb* was ever alluded to, as there was nothing of the kind. The horse was put in harness, although he had never been in harness before; and driven for some



time to please plaintiff and his friend. They also rode him for a considerable time, and tried him in every way. Eventually, they bought him at all the money he asked. On the 8th of June, Adams brought back the horse with a curb and the hair off his knees. He refused to receive the animal, as he believed him to have been a sound horse at the time he sold him.—Cross-examined: Would swear positively there was no appearance of curb when the horse was sold, and that no remark was ever made in his hearing either by plaintiff or Hayward about the hocks.—Benjamin Sillitoe stated that he was groom at Tunstall Hall, and inspected the horse in question at Market Drayton, when in the possession of Thomas Hopwood, with a view to purchase. There was nothing like curb or spavin about his hocks at that time. Had such been the case, he must necessarily have been aware of it. Had had much experience in the management both of hunters and carriage horses, and had often known curbs come on suddenly after great exertion.—Richard Allen deposed that he was a veterinary surgeon residing at Chester, and had thirty-five years' experience in his profession. Had examined the black horse in question, and found a curb on the near hock, but no appearance of spavin. Curb was of the nature of sprain, and always arose suddenly from violent extension of the joint. Did not consider the hocks of this horse what were commonly called "sickle hocks" or "curby hocks," nor particularly predisposed to disease.—Colin Vernon Payne, veterinary surgeon, of Market Drayton, deposed to the same effect. There was, in his opinion, about as much predisposition to curb in this horse's hocks as there was to sprain in a man's ankle or wrist.—William Litt, veterinary surgeon, of Shrewsbury, examined the horse in dispute that morning. There was a curb in the near hock from which the animal was lame. Witness thought it quite impossible that any one from a simple examination for a curb could be able to define the exact time it had been in existence. Curb was generally a lesion of the ligaments connecting the tendons with the back of the hock, and might result from kicking or any other violent extension of these parts. The lameness and swelling were commonly greatest in the earliest stages of the disease. Had this curb been produced by the exertion which the horse underwent at Woore on the 20th of May, it would certainly have manifested itself by lameness at an earlier period. He did not consider these hocks by any means good shaped ones; but, apart from the curb, there was no disease, nor in his opinion any peculiar predisposition to disease. The horse was a sound horse with that exception.—

This closed the case for the defendant, to which Mr. Dutton briefly replied; after which his Honour went through the evidence with great minuteness, telling the jury that to constitute unsoundness at the time of sale there should either be disease or the seeds of disease in existence which afterwards developed themselves. To find a verdict for the plaintiff they must be satisfied that such had been the case in the present instance. The Judge remarked further on the very contradictory nature of the evidence, stating that it became quite a question to which side they would attach the greatest amount of credit, a difficulty which perhaps their own experience of horses might enable them to overcome. The doctors were as usual at issue on certain points, which were perhaps not easy to decide.—After some consideration the jury found a verdict for the defendant, and his Honour, on the application of Mr. Smallwood, allowed advocate's fee, costs of witnesses, &c. The trial occupied the greatest part of the day, and the result seemed to be looked forward to with the utmost anxiety by a very full court.

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## Foreign Department.

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CASTRATION BY TORSION. By M. DILLON.

*(A letter to the Editor of the 'Recueil' on the priority of the discovery of this operation.)*

IF it were possible to make a computation of the number of horses which within the last fifty years have sunk under castration, both by the covered and uncovered operations (*par casseaux à testicales couverts ou découverts*) we should find therein incontestable proofs of both these methods having been the occasion of the loss of a large number of our best horses. In the remount dépôts, even where are stationed the most skilful veterinarians, and where the utmost care is taken of the horses, so considerable have been the losses that the government have come to the determination to purchase as many geldings and mares as they can obtain in lieu of entire horses.

Thus has government found it advisable to guard themselves as much as possible against the mishaps of castration; an operation which, however well performed, and under the most favorable circumstances, too often is attended with

danger, not to mention the length of time afterwards the animals are left in a state of convalescence.

M. Dillon himself confesses to having lost, between the years 1827 and 1830, before entering the army, out of about twenty horses he cut with the (wooden) clams, at the age from 2 to 3 years, the best horse among them by gangrene (for which he had a call on him for 1500 francs), six or seven were affected with *champignons*, while the others, after two or three months, in the end recovered. About the same time a practitioner well known, whose name I refrain to mention, castrated 30 fine Norman horses, destined for the regiments of La Garde Royale, and he had the mortification to see them *all* disappear in eight or ten days after the operation. This unfortunate result, which, at the time, produced a sensation, it was that, added to a long list of similar misfortunes happening from day to day, afterwards produced the order which was issued, and is in force at the present day, to the remount dépôts against the reception of entire horses.\*

Since this order, have operations for castration undergone any change, and is that with the clams (of compression) the one that succeeds the best? "Eh, mon Dieu, non!" On all sides no question is entertained about its insuccess. Are the other methods formerly in use to be preferred? Not at all, unless it be the *ligature*, which is recommended for the very young or for small animals. What means then are we to adopt in place of these former operations. Here lies the great difficulty, or, as the English say, "*that is the question.*" And that has been the question, even from the time of Lafosse, who, himself broken-hearted at seeing castration productive so often of unhappy results, felt desirous of learning whether it would not be preferable to simply at once cut off, with a bistoury, the whole testicular apparatus altogether.

In the course of the year 1829, practising veterinary medicine at the time at Cholet (*Maine-et-Loire*), with the appointment of inspector of the butchery of the town, I was in the latter capacity sent for to a farm to examine a sheep which had but three legs, the fourth, a fore limb, having been, during the night, torn off by a wolf who had paid a visit to the fold. The sheep was destroyed; but it was curious to see how the limb had been torn off the body, and that the operation seemed to have been performed much more cleverly

\* We certainly manage these affairs in England better than this. The early age at which we castrate our horses, and the adept manner in which the operation is performed by the country gelders (for about 5s.), leaves in general very little cause for regret. At the same time, it would be worth while to know what, with us, really is the per centage of loss.—ED. VET.

than even the most skilful veterinary surgeon could have done it; while the brachial blood-vessels were left hanging curled up underneath the integument, without having given issue to hardly any blood. The sheep was consigned to the butchery; but the circumstance left engraved upon my mind an observation not to be forgotten.

In 1834 I was appointed *aide-Vétérinaire* to the 2d Carabiniers; and I learnt that a Polish castrator was practising at Paris castration by torsion; but that horses so operated on were found to be subject to extensive swellings, *champignons*, and *fistulæ*, and other affections of the spermatic cord. These accidents, it appeared to me, were the result of an incomplete compression of the cord at the moment of employment of the torsion. This, it seemed to me, admitted easily of remedy; but a more embarrassing question remained, which was that of hæmorrhage, which might probably more readily ensue if one came to rupture, in the torsion, any part of the cord instead of destroying it partially to a greater or less extent, as must be the case in the manipulations of the Polish gelder. Recalling to mind the history of my sheep, how the scapular and humoral vessels, so near the heart, had been completely obliterated by the operation of the wolf on one side, and the sheep on the other; and being no longer ignorant of the beautiful experiments of Dr. Amussat on the torsion of arteries, I thought it probable I might arrive at the practice of castration without the employment of either clamps or ligature, or heated iron, and avoid the accidents which sometimes happened to the Polish gelder, by *limiting* the torsion along the spermatic cord, to a particular part of its length without variation, through the means of some solid instrument. But on all this, actual practice can alone decide, and it was not long before an opportunity offered for me to do so.

In May 1835, while detached from my regiment with about 100 young horses at grass, I was requested by M. Bourdin, the owner of the farm, to castrate for him a young horse of his own breeding, 4 years old, intended to ride and drive for himself. I did not conceal from him that it was my intention to operate upon his horse by a method in which I had the greatest confidence, though as yet the proceeding was a novel one. The complete success of this first operation, induced me, a few days afterwards, to perform the same on two other stout cart-horses, one 9 years of age, the other 12; and these were the first fruits of the excellence and superiority of this mode of proceeding.

Individual practice and experience, however, are insufficient to carry a point of this kind. *The eyes of all the world* must



see and be satisfied; and it was not long before opportunity offered for me to make my operation public. The remount at Rennes afforded me ample means of obtaining these numerous and irrefragable proofs which I had desired for the public; and then it was that I resolved to make my method known, through a paper, to the Central Society of Veterinary Medicine.

Shortly after this it was that I learnt, from your estimable journal, that Mr. Benjamin had addressed to the society a memoir on '*Castration by Limited Torsion*;' though I, at the same time, perceived that M. Benjamin's instrument for restricting the torsion was not like the one I make use of myself; with this difference, both operations are nearly alike.

(The conclusion of this article is occupied with claims, principally of *priority of date*, set forth to the practice or discovery of this mode of operating over others preferred by MM. Chevrier and Benjamin, which, in our view, seem justifiable; though, after all, the pretensions of torsion to favorable notice, as a sure and safe arrester of dangerous hæmorrhage, has of late years experienced considerable dubitation and suspicion.)—ED. VET.

## ON THE CONTAGION OF CHRONIC GLANDERS.

By M. ANGINIARD, Junior Veterinarian at Marie.

By *chronic glanders* I mean an affection characterised by nasal flux, most commonly but from one nostril, of a greenish matter, adhering in part to the wings of the nostril; discoloration of the pituitary membrane, with a *glacé* aspect of it, and an abatement of temperature of the same side; ulcerations, variable in number and extent, having denticulated edges, with whitish bases, without any traces of inflammation, occupying part or the whole of this mucous surface; and, lastly, swelling of the lymphatic glands, with adherence of them to the surrounding tissues. Under the influence of the disease horses conserve every appearance of health; they continue vigorous and do their work as usual; so that one would say, a new function was superadded to the economy without at all influencing the others common to the body; only that, from time to time, the coat becomes pen-feathered, the skin painful, the appetite diminished, and the functions disturbed, soon again to resume their accustomed rhythm.

If opinions have varied concerning the nature of glanders, they have all concurred on the score of symptoms; so little

is it possible to add to this curt history. Nevertheless, I believe that sufficient attention has not been given to the functional modifications of the skin. Its dryness, its absence of healthy gloss, its particular condition, have certainly an importance capable of affording aid in the discovery of causes operating in the derangement of the organic harmony.

The etiology of glanders has been a sheet of canvass upon which have been figured, in a thousand ways, all that the imagination could produce. The only theory, however, which has stood its ground, and which becomes more and more confirmed, is that which reckons as principal causes all circumstances tending to wear the wheels of the organism, or to clog the functions of the skin; near to which, as more remote ones, come the influence occasioned by pain, of short or long duration, the chronicity of certain affections, and the resorption of morbid products, especially those which direct their operation upon the regular secretions or affections of the skin.

All these primary influences are far from having the same potency. Some there are which, in a state of isolation, continue their action even unto death without inducing those symptoms which constitute glanders; while others there are which, without the combination of any foreign agent, provoke at once the disease. According to my view, one cause alone among the primary influences might of its own accord engender glanders; such as arrest of perspiration, followed by resorption of the modified excreting products, acidified perhaps through the action of the air. This operation seems of value in practice, if we for a moment consider which the horses are most liable to take glanders. In this category we place those who, either through quick or hard work, are subjected to profuse sweatings; such as diligence horses, post-horses, horses used in towing, in road waggons, employed in fortified towns, or with troops.

Under increased respiration, violent exertion forces the blood more under the operation of the air, so that it imbibes a larger quantity of exciting elements, and becomes charged with products to an amount which, not finding combination with the circulating mass, become ejected by the various organs, and above all by the skin. By some such influence the cutaneous functions being all at once suspended, what is to become of all those materials which ought to be ejected by perspiration? They cannot remain in the economy without arousing functional disorder in the different systems.

If we come to examine into the conditions most favorable to the arrest of perspiration, we find the influence of cold

and humidity taking the lead of the others; which accounts for the victims being more numerous in low, wet countries, and in habitations which are cold and wet.

At the present day the mortality of troop horses owes its decrease to their being more salubriously lodged; placed in drier situations, such as admit of the accomplishment of the depurating function. We cannot, on any other ground, explain the operation of humidity in the production of phenomena resulting from it. That its effect is simply a depressing one, is proved by the fact, that almost all the troop-horses attacked by glanders are the more vigorous and in the best condition. Also in country places, where horses are housed at random, it is but rarely that we meet with any glandered horses; such being owing to the rarity of their sweatings, the horses not undergoing violent exercise.

The little frequency of glanders in hot and dry countries explains the freedom of action of the skin, for the entire performance of its functions. And as an argument, further to show that modified perspiration is the determining cause of glanders, I adduce the abscees of the disease in any form showing the direct action of the air, either through clothing or grooming, or their manner of living or working, so long as the horses are not subject to profuse sweatings.

Whenever the functions of the skin are suddenly suspended, will glanders, however, *certainly* result? Assuredly, no! Different morbid phenomena may turn it off; either renal or intestinal action may compensate for the suspension of the cutaneous secretion, or principal organs may become depositaries for the excess, and then arise acute phlegmasiæ in the ordinary pathological apparatus; or else, and this last is the most common, the perspiration which has, under the influence of the air, undergone alterations unknown in nature, is carried into the circulation by the absorbents of the skin, and gives rise to a virulent disease, making election of the nasal cavities or of the skin for its seat.

As to the *nature* of glanders, it is inflammatory, with special properties. Its inflammatory character is sufficiently developed by the form it assumes, by the effect of antiphlogistic treatment upon its acute stage, and by the facility with which, under the influence of certain agents, the chronic disease passes into the acute stage.

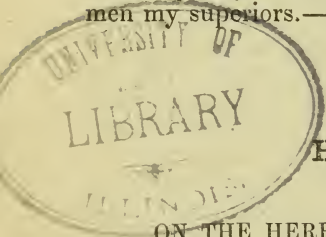
Under these indications, treatment in the acute stage ought to consist in the employment of energetic antiphlogistics, and in the administration of substances calculated to arouse the cutaneous functions. Revulsions at this time become excellent adjuvants. Towards the skin likewise

nature has directed our efforts in the treatment of the farcy form of the disease as well as that of chronic glanders. Small bloodlettings frequently repeated, sudorifics combined with derivatives, and an appropriate regimen, alone offer the best chance of success.

Isolation of the subject is indispensable. Communicated glanders have less chance of recovery than the spontaneous disease.

After all, our most precious consideration is *prevention*. Reflection on the causes may add to this. Stall dressing and clothing animals in a sweat will, by avoiding humidity and cold with wet, constitute potent means for arriving at this end.

I make no pretension to having developed the secrets of nature; science has not yet said her last word; what I have aimed at is, giving my own views of such matters, in order that they may serve to direct to the subject the attention of men my superiors.—*Récueil de Méd. Vét.*, June, 1853.




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## Home Department.

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### ON THE HEREDITARY DISEASES OF HORSES.

By FINLAY DUN, JUN., V.S., Lecturer on Materia Medica, &c., at the Edinburgh Veterinary College.

PRIZE ESSAY.

(From the *Journal of the Royal Agricultural Society*, vol. XIV.)

SECOND PART.

(Continued from p. 530.)

II. *The Hereditary Diseases of Horses*.—In regard to the hereditary diseases of horses we shall consider, first, those of a local nature, afterwards proceeding to those which are more general in their character, and which affect the system as a whole.

Local hereditary diseases are usually simple in their nature, and consequently their predisposing causes are easily traced, and usually consist in some peculiarity of external form more or less obvious. This observation chiefly applies to several sorts of lameness, which we shall now notice.

*Bone Spavin* consists in inflammation of the ligamentous



and synovial connections of the bones of the hock, and usually of those between the cuneiform medium and metatarsal bone. Effusion occurs, forming an exostosis or bony tumour on the antero-internal part of the hock, attended during its formation with great pain and consequent lameness. Violent and continued exertion, especially when the animal is growing, is the usual immediate cause of this disease. The amount of strain of the parts affected, and the consequent liability to the disease, are always greatest where the width and strength of the limb below the hock are disproportioned to its width and strength above the hock. Horses of such conformation are unusually predisposed to the most troublesome and serious cases of spavin, and hand down to their progeny a similar conformation and predisposition. Other bony deposits besides spavins are also more apt to affect some families than others. This tendency may depend on an endeavour on the part of nature to strengthen a local weakness, as well as on a general disposition to the formation of exostosis—a disposition always more frequent and stronger in the horse than in most other animals.

*Curb* is a strain of the calcaneo-cuboid, or posterior straight ligament of the hock, causing pain and swelling on the postero-internal part of the joint. Horses most subject to it are those in which the hock is straight and the os calcis short and inclining forwards.

Of all the complaints to which horses are liable there is none more frequent, more troublesome, or more tedious, than *strain* of the *back tendons*. It usually consists in rupture of the minute fibres of the tendo perforans, or of the strong *check* ligament attached to it. To repair this injury inflammation is established; effusion soon follows, and occasionally thickening and shortening of the limb. The frequency and severity of this accident might be greatly diminished by breeding only from animals with sound well-formed limbs. The chances of its occurrence are least in horses having well-shaped knees, sufficiently large both in their anterior and lateral aspects, with the tendons prominent from the fetlock upwards—a formation which gives a flat appearance to the limb when viewed from the side. Horses, on the other hand, with round legs and small knees, to which the tendons are tightly bound down, are especially subject to strains, on account of the want of that full prominence of the posterior part of the knee which is found in limbs of a more perfect conformation, and which gives a mechanical advantage to the tendons passing over it. With the aid of this lever the

tendons perform the work required of them with ease and safety: without it, they are apt to suffer from the sudden and violent shocks to which they are subjected, especially when the horse is put to fast work.

*Navicular Disease* depends upon strain or laceration of the tendo perforans just where it passes over the navicular bone. It causes pain and tenderness of the parts affected, a short, tripping, but cautious gait, a *wiring in* of the heels, and a wasting of the muscles of the shoulder, with all the other well-known symptoms of grogginess. The predisposition to this disease is especially great in horses with narrow chests, upright pasterns, and out-turned toes. Even with average work, horses in which this conformation is decided can scarcely fail to become groggy, for the distance between the point at which the tendo perforans is inserted into the os pedis and that at which it passes over the navicular bone is so short, and the angle it makes so acute, that the tendon acts at a mechanical disadvantage, and is constantly liable to strain. But defects like these rarely occur singly, there usually existing in addition a want of mutual adjustment between other parts of the limb. Navicular disease is, therefore, to a certain extent hereditary, in so far as there are certain forms of limb especially subject to it. A tendency to it exists in several stocks that have come under my own observation; and I am informed by a veterinary friend, Mr. Tuthill, long resident in Ireland, that he knows of the progeny of several Irish horses, in which navicular disease is so common, that they are always looked upon with suspicion, and bring in consequence lower prices than their general appearance would otherwise warrant. The progeny of 'Young Musician,' for example, a thorough-bred horse, well known in Ireland, and especially in the western counties, all show a great tendency to this disease.

Acute diseases are usually referable to some cause or causes which are often violent in their nature, but operate for a comparatively short time; their special locality may be determined, or their type or intensity modified, by the particular constitution of different animals; they seldom, however, owe their existence to inherent hereditary causes. Chronic diseases, on the other hand, usually result from the continued operation of causes inadequate to induce acute maladies; they often occur as consequences of badly-treated or acute attacks, their development is greatly dependent upon the special constitution of the individual, and many of them are more or less hereditary. No diseases better illustrate

this than those affecting the respiratory organs, such as chronic cough, thick-wind, and roaring, all of which are usually hereditary.

*Chronic Cough* depends on excessive irritability of the mucous membrane of the trachea or bronchii, and often occurs as a consequence of bronchitis. In unfavorable states of the atmosphere it is greatly aggravated, and in all such cases the slightest over-exertion is sufficient to cause a painful, harassing cough. This irritable condition is very apt to be hereditary. A thickened state of the same mucous membrane, inducing thick wind, grunting, and some of the cases considered as broken wind, is also hereditary; and the same obtains with *roaring*, especially that form of it which alone, in strict propriety, is entitled to the name, and which consists in atrophy, or wasting of some of the muscles of the larynx, especially the crico-arytænoideus posticus. In consequence of this wasting, the cartilages of the larynx fall inwards at every inspiration, and the consequent diminution of the passage through which the air passes causes in respiration a peculiar roaring, grating sound. If the ear be applied to the throat of a roarer, there may usually be heard at each inspiration a grating flap, caused by the cartilage falling inwards. It is important to observe that this sound, as also the roaring noise accompanying it, occurs during *inspiration*: for when such a sound occurs during *expiration*, it indicates a morbid condition of the lower parts of the bronchial tubes. In roaring, the particular *timbre* or quality of the sound varies considerably, according to the amount of the obstruction. Where this is very great, and the diameter of the tube much reduced, a sharp whistling noise is produced; while, if there be less diminution in the calibre of the tube, a deep roaring or grunting noise is observed. Hence whistling is not in all cases, as is generally believed, a less serious, but, on the contrary, is frequently a much more serious, affection than roaring, resulting, as it often does, from an aggravated state of the same morbid condition on which roaring depends. Roaring may be readily detected, even when not very bad, by giving the animal a gallop, which renders the defect apparent by increasing the rapidity and depth of the respirations, or by suddenly threatening to strike the animal, or giving him a smart blow on the ribs, which causes a sigh or deep-drawn inspiration, and thus gives rise to the sound characteristic of the disease. Pressure on the larynx also induces loud and repeated coughing, and in such cases it is observable that each particular cough has a different sound.

Many cases, illustrating the hereditary nature of roaring,



might here be cited. The celebrated horse 'Outcry' was well known to be a roarer; many of his stock, out of perfectly sound dams, have turned out roarers; and I am informed, on competent authority, that the defect of the sire has, in several instances, been very evident in the third generation. Some time ago, a friend of my own got from Northumberland two young horses of considerable value. Though perfectly sound at the time of purchase, both soon after became roarers: they had been bought from different breeders, but, on inquiry, it was found that both were got by the same sire, and that many more of his progeny had also become affected by the same disease.

But roaring may occur independently of hereditary causes. It is occasionally produced by the presence of tumours in the larynx or trachea; more often by constrained positions of the head and tight reining, and hence frequently occurs in old carriage-horses. It is sometimes met with in crib-biters, from their being made to wear straps buckled too tightly round the throat. It supervenes from bad attacks of bronchitis, especially when of frequent occurrence, and also from phlebitis, being caused in the latter instance by defective nutrition of the muscles of the larynx. But even in cases where roaring is not congenital, but is produced during the lifetime of the animal, and by accidental causes, it may manifest a hereditary tendency. There is, indeed, no accidental defect more commonly transmitted from parent to offspring than that on which roaring depends.

Considerable caution is requisite in judging as to the existence of roaring in stallions of the heavier breeds, for three fourths of these, when briskly exercised, produce a loud roaring noise, which often occurs without any disease of the larynx, trachea, or any part of the respiratory apparatus. It results from the high spirit and condition in which entire horses are usually kept, from the acute angle at which they generally carry the head, the abundant disposition of cellular tissue and fat about the throat, the comparatively small width between the sides of the lower jaw, the great development of the muscles of the neck, and the thickness of the mucous membrane lining the larynx and contiguous parts. But the noise so produced is somewhat different from that depending upon morbid peculiarities. It is observed during expiration as well as inspiration, and usually disappears when the nose is elevated so as to be placed as much as possible in a line with the neck. When the sound has these distinguishing characters, and occurs in animals of the heavier breeds with well-formed necks and chests, it is



not likely to be productive of any bad effects, or to be hereditary. All such sounds occurring in the lighter breeds of horses must, however, be regarded with great suspicion.

There are few diseases in which hereditary tendencies are so manifest as in that variety of deep-seated *ophthalmia*, or inflammation of the eye, recognised by veterinarians under the various titles of periodic, specific, or constitutional ophthalmia and moonblindness. In this disease the inflammation involves, to a greater or less degree, all the internal parts of the eye, exhibits a great tendency to effusion of lymph, often attacks only one eye at a time, but, on subsiding in the one first affected, is very apt to appear in the other; always leaves the eye affected dim, weak, and susceptible to a future attack, and is seldom entirely got rid of until blindness of at least one eye has been induced. The symptoms of this disease are usually tolerably well marked. The mucous membrane and its various appendages are inflamed; there is copious secretion of tears, great pain and tenderness, and marked intolerance of light. The cornea becomes opaque and for some time intercepts the view of the parts within. The eyelids are nearly closed, and the eyeball within when visible through the cornea soon loses its clear transparency, in consequence of the humours becoming of a muddy yellowish-brown colour from effusion of lymph. Febrile symptoms are present, and are greatly more intense than might be anticipated from the comparatively small size of the part affected. After two or three days there is often a remission in the intensity of the disease, the external parts being less inflamed and the dull muddiness of the cornea and interior gradually diminishing. A recurrence of the acute inflammation, or its transference to the previously sound eye, is always, however, much to be dreaded. Sometimes the eye apparently recovers, and the superficial observer might consider it perfectly healthy, but the more experienced will find, on careful inspection, sufficient evidence that the organ has been the seat of disease, and that there still remains a change of structure which predisposes to subsequent attacks. The eye seems smaller than its fellow, and still remains intolerant of light; the cornea is often dull, the margins of the pupil frequently uneven and ragged, and the movements of the iris impeded by adhesions; the more deep-seated parts have a peculiar leaden appearance, and shreds of lymph may sometimes be observed floating in the aqueous humour, or imbedded in the crystalline lens or its capsule: the last condition constituting what is technically called a *cataract*. This may vary much in size, being

sometimes a speck scarcely perceptible, and interfering slightly with vision; at other times large, with white lines passing outwards in every direction, and causing nearly total blindness. Eyes having any of these appearances must be regarded as unsound, and specially susceptible of inflammation, which is apt to be excited in them by such causes, as exposure to cold, high feeding, over-work, or debility, and is liable to return again and again, until the animal is totally blind. But before the occurrence of an acute attack it is scarcely possible, without an examination of its progenitors, to determine positively whether an animal is predisposed to periodic ophthalmia. Horses with small dark eyes, large, coarse heads, and of dull and phlegmatic disposition, are, however, generally considered to be specially subject to the disease. There is seldom any very apparent defect of the eyes, either in structure or function; still it cannot be doubted that there exists in them some peculiarity of conformation or of minute texture differing from health, and which, although generally unobservable, is yet capable, under favouring circumstances, of fostering serious and irremediable disease.

Ample evidence can be adduced in support of the hereditary nature of ophthalmia. Cases of congenital blindness in stock subject to it are recorded. These, however, are rare; but opacities of the cornea and cataracts are not uncommon. The tendency to the disease frequently shows itself before the animal has been stabled or worked; but more commonly, such changes in the mode of life appear to be the immediate cause of the attack. A very large number of the stock of the celebrated Irish horse 'Cregan' have become affected by ophthalmia of the worst kind. I am told by a gentleman well acquainted with this stock, that the tendency is still decidedly marked even in the fourth and fifth generations, often appearing, and sometimes speedily causing blindness, very early in life, as at two or three years of age, and even before the animals have been exposed to what are considered the ordinary exciting causes of ophthalmia.

Specific ophthalmia affords a good illustration of a malady which, although usually hereditary, is occasionally produced by accidental causes, and to all appearance independently of hereditary tendency; and this two-fold mode of production has given rise to much contrariety of opinion concerning the hereditary nature of the complaint. It is sometimes produced even in its worst form by over-work and injudicious feeding, but such accidental cases are seldom hereditary, for,

as we have above remarked, acquired peculiarities are less likely to be hereditary than inherent ones. From this it is obvious, that all blind animals are not at once to be condemned as unfit for getting sound and perfect stock. The cause of their blindness must be inquired into; and when it can be shown that they have lost their sight from accidental causes, and that the stock from which they sprang was free from all diseases of the eyes, they may be safely used for breeding purposes. If, however, on the other hand, the blindness cannot be traced to any adequate extraneous cause, or if the sire or dam, or any other relatives of the animal, be also blind, or affected with cataracts, the animal must be rejected, as likely to produce stock with weak eyes, and susceptible of that very serious disease, periodic ophthalmia.

(*To be continued.*)

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#### ON ANIMAL PHYSIOLOGY.—FARM STOCK, BREEDING, AND FEEDING.

By EDWARD J. LANCE, Bagshot.

IN the *Farmers' Herald* of July last, I made some remarks on the above subject, since which, the views I therein advocated have been much confirmed, for many friends have said they were able to prove the correctness of my position, viz., that confinement to the same blood had a tendency to degenerate the offspring.

This physiological fact is not heeded during the warmth of youth, by the human family; and it is only in the decline of life that, upon mature reflection, the truth shoots into the mind, perhaps, at a time when the sad effects have been made manifest, and cannot be remedied.

That the same order of nature pervades the whole animal kingdom, I need not dwell on, for it is proved to a demonstration, by every yearly progress of our lives, also, that if we disobey the organic laws of creation, we must pay the penalty in this life, individually, or in succession.

The sins of the father are visited on his generation; nations, races, and tribes have characters from physical causes; as have the varieties of the same species amongst the lower animals. But "the eyes of the multitude are not strong enough to look at truth." This was the remark of a sage in Greece, and is still applicable to the human family.

The care and management that is now bestowed upon the lower animals, by the *connoisseur* in stock breeding; and the high price that is given for symmetry, and fanciful colours, and forms, is enough to induce the farming community to give some attention to the general physiology of animals. A single individual can get his name into repute for certain points in the form of animals, and what is true of individuals, is also true of the whole nation of animals. A contemporary writer of the physiology of animals, has said that races are necessarily the result of organic constitution;—that the human race has the power of modelling its own organism, as well as that of the lower animals, and by a series of combinations, a high moral and intellectual character, or a character decidedly the reverse may be produced;—in fact, that the existing state of society is its own production, and it can either exalt or depress it, by attending to or neglecting the laws governing its structure. “Man has power over matter; but to use that power he must conform to the laws governing matter.

Mankind knows this truth and acts in accordance with it, when employed in developing and perfecting the lower animals, in his breeding horses, bullocks, sheep, &c.; but as regards himself, which is of immeasurably more importance, he wilfully neglects the few laws he has discovered, disdainfully turns aside from the innumerable facts daily presented to him, and thus retards the progress of his race. It is by observing and recording facts only, that we can hope to improve ourselves, or those animals committed to our care. By a study of nature in her wondrous ways; by a proper knowledge of the animal and vegetable physiology; by a study of the mineral kingdom, and the infinite diffusion of matter throughout the universe: by these combined points of knowledge, we may hope to arrive at just views and appreciation of life, and how it may be best sustained in the greatest vigour.

In this inquiry into the physiology of animals, I have considered myself justified, by experience and data, (some of which have been placed before a discerning public,) to speak my mind, in hopes to caution others who may not have observed so closely, with (comparatively) a microscopic eye, as I have done, throughout a life period of three-score years; hence, I have spared neither kings, queens, or princes, relations, or friends, but have said they were wrong, wherever nature had said so previously. Laws are made by man, to restrict the union of persons who are related by marriage ties only, yet man unheeds the restriction which nature has



dictated as a guide, and permits blood relations to produce a degenerate race.

A physiologist has said that "We vote millions of our treasure to unchain limbs, but make our judges persecute men for their opinions and thoughts. In theory and outward appearances encourage candour and free aspirations, in practice and in the secret workings of our institutions, render men hypocrites and slaves." "The frown of power can crush the most superb intellect, and prevent the utterance of thoughts calculated to invigorate the drooping energies of kindred brains. In this land of liberty, the first touch of our shore infuses freedom into the enslaved muscle, but binds tighter the fetters surrounding thought—bids the trembling captive assert the rights of humanity, but prevents the free action of the organ,—the cause of his superiority."

It is to physical education we must appeal, as the sheet anchor, that will save a people from degradation. A knowledge of the physiology of animals and of vegetables, should be taught in our schools; it would be far preferable to learning the dead languages, or doctrines taught by idealogians. By education, the cultivators of the earth might be taught to understand the methods by which nature builds up the vegetable structure, as well as that of the animal; the former receiving their supply of food through the media of air and water, and the latter receiving their nourishment principally from organised substances. Of this latter, I wish now to dilate, as some very false notions are entertained as to the design of nature in constituting carnivorous and herbivorous animals, and of man, who is omnivorous.

The form of the cranium of most animals bespeak the class of food designed by nature, on which the animal should exist, together with the beak or mouth, the masticatory organs, &c.

The cat and the rabbit, the hawk and the pigeon, are examples of the form of cranium, as well as of the teeth. The ass and the lion are very varied as to their heads and teeth. A similar comparison may be made as to the form of head of many varieties of the carnivoræ and herbivoræ, as well as that of man. The Brahmins of India are a weakly and degenerated race of people; they do not consume animal food, their heads being exceedingly narrow; whereas, the North European and Esquimaux feed much upon animal food, and has hence a wide cranium, the masticatory processes being also designed accordingly for such consumption of food.

The food taken in by the herbivorous animals is divisible

into two grand divisions, viz., the nitrogenous, or blood and flesh forming matters, and the non-nitrogenous or the fat-forming, being the material which keeps up the heat of the body, gives power of motion and respiration. These several foods are exemplified in the milk of the female, which embraces them all. It is also contained in the eggs of birds, but in this latter, the nitrogenous is in the greatest abundance. Some vegetables tend to form fat, whilst others form flesh and blood. Vegetables are good or indifferent as food for man and animals, in proportion as they contain nitrogen or carbon, flesh or fat, cheese or butter forming substances.

Of all the vegetables grown by man, the wheat grain contains the greatest assimilation to the mother's milk, as it contains gluten and starch, the principal matters, or as they may be termed, cheese and butter. Dr. Playfair has said in his lectures,—“Casein is precisely the same in composition as animal flesh, and hence supplies matter adapted for the growth of the body. Butter and sugar are destined for the support of respiration and consequent maintenance of animal heat. Butter is a substance admirably suited for the purpose; for, being of a combustible nature, it yields much heat by its union with oxygen. Sugar also is well adapted for the support of respiration, from causes which have been explained.” “The milk of the cow contains much casein and butter, and less sugar than other animals. The ashes of milk consist principally of common salt and the earth of bones. The soda of the common salt is necessary for the formation of bile, whilst its muriatic acid aids in the process of digestion.

Feeding on milk, or on cheese and butter with bread, is taking the most nourishing food that can be had for man; but the kind of food for man, or the lower animals, must be varied in accordance to the age of the animal, and in agreement with what is desired to be accomplished. A growing animal requires much nitrogenous food, and less of the carbonaceous; the one will build up the frame, and the other add the fat, warmth, respiration, and motion.

An animal having been built up to its full size, requires only its parts to be kept up, and the exhaustion of fat supplied daily; also, as fuel for the supply of warmth, locomotion, and respiration; these latter functions are of vital consequence, and first call on the food for support. If any carbonaceous matter is left from these supplies, then will fat accumulate on the body, and not until then; should there not be sufficient food supplied of the proper kind wanted,

then will the body waste, and the fat of the inside will go to supply warmth, respiration, and motion.

The human frame belonging to an omnivorous animal requires that the blood should be kept supplied with nitrogenous matters, which, surely, can be obtained from milk, eggs, maccaroni, cheese, &c., but, to attempt to obtain it from the starch of potatoes, rice, sago, sugar, or other carbonaceous foods, would be futile. The wheat contains about 20 per cent. of nitrogen or gluten, and 80 of starch or carbon—hence it assimilates the nearest to cheese and butter, flesh and fat. It has been found that where man is confined to a vegetable diet only, he becomes weak and diseased; such has been the case with the Irish and the Brahmins, where cholera and other such like diseases have commenced; indeed, it has been found that the urine of vegetarians has changed its nature, the uric acid being changed into a sugar and disease engendered. On this head see *Andrews's 'Domestic Medicine,'* article—Diet.

The nitrogen, or flesh and blood forming principle in some vegetables, and that of flesh and eggs, are so similar, that they may be considered identical. Dr. Playfair gives the following:—Wheat flour, 13·9; pease, 15·67; eggs, 15·92; ox blood, 15·76; ox flesh, 15·67. “Thus (says Playfair), we are led to the startling conclusion that plants contain within them the flesh of animals ready formed.” The waste nitrogen from the blood is expelled from the system by urea; hence, if there is want of animal food in the body, this excrement becomes changed from its natural state. The watery state of some vegetables, and their nourishing capabilities, may, in some measure, be seen by the following table; but the relative value of various foods must be taken in proportion to what is required, either of flesh, fat, or the necessary functions of life :

lbs.	Nitro Albumen.	Water.	Organic Matter.	Carbon.
100—Beans . . . . .	31 ..	14 ..	82 ..	51
„ Flesh . . . . .	25 ..	— ..	— ..	0
„ Lentils . . . . .	33 ..	16 ..	81 ..	48
„ Oatmeal . . . . .	11 ..	9 ..	89 ..	68
„ Barleymeal . . . . .	14 ..	15 ..	82 ..	68½
„ Hay . . . . .	8 ..	16 ..	76 ..	68
„ Turnips . . . . .	1 ..	89 ..	10 ..	9
„ Carrot . . . . .	2 ..	87 ..	12 ..	10
„ Potatoes . . . . .	2 ..	72 ..	27 ..	25
„ Red Beet . . . . .	1½ ..	89 ..	10 ..	8½
„ Blood . . . . .	20 ..	— ..	— ..	0

The numbers in the first column represent the quantity of gluten, and may be considered as the equivalent value of the

various foods as regards the flesh forming principle, but they form no indication of the capabilities of the food to form fat, or maintain the necessary functions of respiration or motion.

The column under the head of carbon gives a comparative view of the latter capability, an excess of which goes to accumulate fat on the external and internal parts of the animal, where it is held as a reservoir for the wants of the animal. A fat man, or a fat hog, or a fat dormouse, will live longer without a renewal of food than a lean animal of either species.

In cold weather, animals require the largest proportion of carbonaceous food, to act as fuel to keep them warm.

The relative value of potatoes and beans cannot be compared, because their respective value as food arises from totally different causes, the one tending to flesh, and the other to form fat; hence, the necessary art of mixing variety of food for animals. I do remember, thirty years ago, my father at Sutton, in Kent, fattened some pigs on inferior beans that would not sell well at Dartford market, the consequence was that the meat was so hard that it could not be relished as pork, and the pigs were a long while becoming fit for killing; had potatoes, or any starchy grain, as rice, &c., been mixed with this food, the result of the fattening would have been much more in favour of the owner.

Thus do we see the propriety of combining the practice of farming with that of the scientific principles, as is now being done and explained in Morton's 'Cyclopædia of Agriculture,' published by Messrs. Blackie, Glasgow.

I have been led into these remarks on the comparative value of vegetable and animal foods, in consequence of meeting with a travelling gentlemen, who condemned the use of animal food *in toto*, and all decoction or infusion of vegetable foods, himself drinking only plain water, as his primitive fathers might have done; yet this same gentleman would feast on the milk, the cheese, and the butter, which would build up the calf; he would feed luxuriantly on the albumen which would build up the fowl, its bones, flesh, and feathers. In the egg must be contained all these bases, as the phosphate of lime is contained in the milk of the cow, which build up the bone frame of the calf.

In these remarks, I hope to have shown the principles in a short and clear way how the animal is built up and sustained. I would feel myself obliged by correction from any correspondent to this journal who may consider me in error, and I would remark, with Dr. Playfair, that, "Blindfolded ignorance gropes with hesitating steps through 'pastures



new :’ but scientific knowledge steps boldly forth, carrying along with her the lamp which will light her in the way of her inquiry.” It is the duty of practical men to apply the lights that shine on their professions.—*E. J. Lance ; Farmer’s Herald, September, 1853.*

## THE VETERINARIAN, OCTOBER 1, 1853.

Ne quid falsi dicere audeat, ne quid veri non audeat.—CICERO.

SOME time ago, it was inquired of us by a veterinary surgeon of the Hon. East India Company’s service, how it was that the Indian army, a larger one than the British, and possessing a greater number of veterinary officers, was without a PRINCIPAL VETERINARY SURGEON ; the same as exists in our own, in the French, and in other continental armies ? We had not before, we must confess, ever turned the subject over in our mind, though the moment we came to do so, the fact itself was palpable enough, while the defect struck us, as one calling for attention ; there being upwards of forty veterinary officers in their service, while in our own there exist hardly thirty. Whether, however, there be thirty or forty, and though veterinary surgeons be standing in both services in a state of isolation, as it were, in different regiments and stations, still do they seem to require, for the more efficient performance of the duties demanded of them, to be, as a professional body, linked together by some one common chain of concatenation, and for some person to hold the ends of this chain, and arrange its various links in such manner as to see that every individual one plays its due part ; and this person ought to be one erected into superiority out of its own body. The functions of a principal veterinary surgeon properly carried out, are no less onerous and responsible on the part of the holder of the office, than they are appellant on the part of the subaltern officers of the department for their due co-operation and support. Not merely are “returns” required, periodically, of the number and nature of diseased and lame horses, the casualties, the results of treatment, the receipt and consumption of medicine, &c., but detailed accounts of particular cases and occurrences are called for requiring to be analysed and examined, and arranged into some scientific digest to be laid before the authorities, as tending, not only to the benefit of the military veterinary department itself, but as proving eventually of essential service to the professional community at large, and from them

reflected upon the horse world in its widest sphere of extension. Then might military veterinary surgeons become—what now they are not—valuable contributors to our stock of medical and veterinary science, and the spare hours and thoughts such officers have on their hands be turned probably to better account than they are at present. An important function of the office of principal veterinary surgeon of the army is to stand at the gate of *entrée*, through which candidates are admitted into the service as regimental or dépôt veterinary surgeons; and a very responsible duty this is, considering that the well-being of the hygienic and medical charge of the horses of the cavalry depends upon the efficiency of the persons admitted. When it comes to be considered that the ventilation and draining of the stables, the feeding and exercise of the horses, their shoeing, &c., are all under the recommendation or direction of the regimental veterinary surgeon, added to his medical duties, some notion may be formed of the qualifications to be looked for to constitute a fit and proper person for the efficient fulfilment of the office: the *medical* knowledge demanded of the candidate being of a nature such as is more especially called for in the service in which he is about to enter. In the Indian service, this, of course, would, in many respects, require to be of a total different character from what is requisite in our own; though, by the way, it may be observed that, in the present state of our veterinary literature, we hardly know where a candidate would go in search of the desired information, seeing that we do not possess any work or “manual of the diseases to which horses in Hindostan, native or imported, are especially subject.”

The veterinary service of the East India Company, it is manifest to every one in Hindostan acquainted with veterinary concerns, suffers inconvenience and disadvantage from this want of a *head*. Any representation or complaint a veterinary officer has to make, or communication he may desire to have with the government, must now go through a superintendant *surgeon* and the *Medical Board*; who, possessing neither *savoir-faire* nor interest, or but very little, in veterinary matters, are manifestly incompetent to form such judgment upon them as to be likely to settle them to satisfaction. A young man embarks for India direct from one of the Veterinary Colleges, who, perhaps, has never had a case of a sick or lame horse confided to him, to treat on his own judgment and responsibility, in his life. On his arrival in India, he does duty for three months under some senior veterinary officer, and then can call for examination; and, should he pass, at once comes into charge of a regiment. Now, what practice or

experience can "three months" afford? In our own service, from their being constantly *two* probationary veterinary officers, it rarely happens that less than one year is so passed; oftener, probably, it is two, before a vacancy occurs; thus giving the probationer six or eight times as much interval for learning what, unlike *Indian* practice, he is supposed to be *already*, in a great measure, acquainted with. To show the folly and inadequacy of such a system, it was but a short time ago that a young gentleman of *five* years' standing in the Indian veterinary service, was reported "inefficient" by his commanding officer, and in consequence was placed under the *surveillance* of a senior, who was ordered to make *his* report on him, and in *three months* too! A distressing position, truly, to be placed in at any time; but the more so on this occasion, from the circumstance of the vacant corps being placed under the veterinary charge of the very same senior, and being (as it would be to any one) to him pecuniarily beneficial.

Such a state of affairs ought not to exist; neither, in our opinion, would it much longer exist were the facts known in the proper quarters, either abroad or at home. It has ever been the policy of the HON. COMPANY to have *every* department, and of their army in particular, fully and completely efficient; and when we come to reflect upon the large sums of money annually paid by the "COMPANY" for horses, and for breeding establishments to keep up their stock of horses, it cannot but turn out a narrow and bad policy, either to curtail the numbers or cripple the resources of such an important and scientific auxiliary as the *veterinary* department, properly constituted and managed, is calculated to be. We repeat, we think a grievance such as this—the want of a *superintending* Veterinarian—requires but to be known and considered, to be supplied. From such an appointment, filled by a person old in his experience and matured in his judgment, a great deal might be learned by the Indian Government in their purchasing and breeding of horses; in their regulation, and management, and distribution of veterinary officers; in the senior being the mouth-piece as well as controlling authority of such department; and, finally, in his being always at the seat of government, supplying there the place of a local veterinary surgeon, in immediate attendance on the Governor-General's body-guard and private horse establishment, as well as on the studs of such constituted authorities and departments as are usually located at the capital: thereby, in reality, hardly or not at all adding to the current outlay of the present veterinary expenditure.

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IN the horse-cause "*Redfern v. Hopgood*," contained in our number for this month, Mr. Thomas Walton Mayer, V.S., of Newcastle-under-Lyme, gave evidence on the part of the plaintiff, and is, in the report, stated to have said:—"His (the horse in question) hocks were naturally badly-shaped hocks; so bad, that he (Mr. Mayer) could not consider him sound, *even if no disease were present.*" This is an opinion based upon novel and rather perilous ground. It opens the door, not to a fresh kind of unsoundness only, but to an additional cause of lameness as well,—one that we may henceforth denominate *congenital lameness*. And we thank Mr. Mayer for the hint, which we shall not, on some future day, fail to turn to account. Henceforward, congenital lameness will come into our nomenclature. But, what are we to say about congenital defect or deformity which does *not* produce lameness? Are we to view it as unsoundness because *it appears likely* or "has a tendency" to generate lameness? And, if so, what are we to view or actually pronounce as congenital deformity? Shall we, in every individual instance, be able at once to decide upon this point positively? We are afraid not; and therefore it is, that, having once opened the door, we hardly know how we shall set bounds to its swinging open, backwards and forwards, and whether we shall not, in the end, be forced to close it again. We feel ourselves in the position of a fox-hunter, who, in the chase, the moment he has jumped his horse into a field, if he be a provident hunter, begins to look about him, to learn at what gap or gateway he is to make his egress out of the enclosure. To illustrate our meaning, we will take the point before us, viz. the "naturally bad-shaped hocks." Such Mr. Mayer described them to be; a description confirmed by Mr. Careless, V.S. But, did Mr. Litt, another V.S., think the same of them? He said, "he did not consider these hocks by any means *good-shaped* ones; but, apart from the curb, there was no disease, *nor, in his opinion, any peculiar predisposition to disease!* The horse was a *sound* horse, with that (the curb's) exception." Here, then, we have at once a difference about congenital deformity or mis-shape. Still, there are hocks on which, perhaps, none of us would differ in opinion—hocks indisputably "bad" from birth. Would such hocks constitute unsoundness? Here we find ourselves on the brink of that bottomless pit,—the question of soundness. One step more would peril our footing. We shall, therefore, for the present here leave the subject, simply adding, we must not blot out from memory—congenital unsoundness.



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DISEASES OF ANIMALS IN INDIA SIMILAR TO ASIATIC  
CHOLERA.

By J. T. HODGSON, V.S.

HORSES in India (except at the Government studs, where oats are grown, and from whence owners of race-horses procure some), are fed upon pulses; in general *Boot gram* *Ervum lens*, which has been split, or soaked some time in water, so that the husk rubs off easily.

Some persons, particularly when marching, give pulse dry, split, or whole, as it may be procurable; others feed with barley, or barley and grain, parched and coarsely ground. These different methods of feeding have each advocates among Europeans. The natives frequently feed with moat grain boiled. The pulses are the most nutritious kind of grain, equally fit food for horses and other animals as other kinds of grain; but, as I shall show, too much grain of any kind thus improperly given, unless the animal be worked or exercised, is extremely deleterious.

Grain is very cheap in India, upon which animals, horses, and cattle, are fully fed, and this, too, in the rains, though for several days not worked or exercised; the native groom, unless made to do so, neglects to avail himself of fair weather. Thus, fed with grain, horses do not eat anything else, or very sparingly of green grass, or half-made hay, although before them in general lies an unlimited quantity of sun-grass, roots and all, (a fine grass, in variety to that in England called *twitch*, so troublesome to arable farmers,) without which, in India, animals would starve during the hot season, when, notwithstanding the drought, although short, it always remains green.

It is really necessary, to avoid this bad stable management, to put some limit to the feed of horses not worked, and to set some trustworthy servant to see that horses are exercised. It will not do to give orders only, as it is an orientalism to reply, "It is done, Sir!" and your native groom will lie him-

self down and not think of it, or go but a short distance for fear of dirtying the horse and giving himself labour.

On a march, you may halt two or three days, be engaged on business or pleasure in the cantonments away from your tents; and, unless you do as I have before advised, your horses will not be once loosed from picket.

I have written thus far, not merely as a practical horseman, cautioning any one going to India against this; but professionally showing what, I believe, are the causes of the losses, after a few hours' illness, of many valuable horses, not easily replaced.

I had not been many months in India before I had the vexation to lose a valuable stallion, travelling under my care, from this disease, enteritis, one march from the civil station of Bitem, where I had halted two days, whereas it had usually happened to others at Bittoor, which is one march from the cantonments of Cawnpore; and so frequent was its occurrence, that the native tanners were suspected of having poisoned the horses for the sake of the skins. This was told me by the superintendent, and I was glad he was satisfied there was no neglect or want of skill on my part. I was then ignorant of the natives, but subsequent experience soon convinced me the tanners had nothing whatever to do with it, but that the causes were as I have before stated.

I was sent for while at Calcutta, in the latter end of the cold season of 1822, to see about 80 horses that had arrived a short time before from Delhi, a march of 900 miles. On inquiry, I believe the horses had been standing at picket in a cantound (walled-in place), feeding upon an increased quantity of pulse to get them into condition for sale, with little, and for several days no exercise. Some were in the first stage of this disease, very costive, the fæces covered, more or less, with whitish slime, or whitish opaque, or yellowish thicker coagulated lymph. The horses were dull, refused to feed, or did so sparingly; the pulse was hard, but not increased in frequency; the mouth was hot and dry; the skin and extremities were warm, the horses were standing in the sun; the membranes of the eyes and nose were pale. The horses did not lie down and get up again—this symptom of enteritis occurs when the horse has been attacked at work; you overtake your horse in this state on a march, or at the end of it. I took a large quantity of blood from these horses, and administered ʒj doses of aloes in solution every three hours, at the same time copious clysters. Some of these recovered.

Other horses, the greater number, were in the second

stage—purging, a slimy fetid mass, mixed with which were pieces of coagulated lymph; the pulse was small and frequent, when it could be felt; the mouth cold and clammy, membranes of the eyes and nose of blueish tinge, skin and extremities cold; there was a peculiar expression in the horses, and great prostration of strength; but no cramps, except those where death happened. I have forgotten now the number, but I declined to bleed these horses, for the satisfaction of the owners. I opened the jugulars of several, telling them before hand that only a little black blood might trickle down, which happened. I sent for some Tinct. of Opium and Chalk, which was administered to some, and embrocations to raise speedy inflammation was applied to the abdomen. Some died before the medicine arrived, as they were in a state of collapse when I first saw them; in fact, this stage of the disease, although all the symptoms may not always be the same as in man, is similar to *Asiatic cholera*.

I have not seen this disease in man, but about 35 years ago Dr. Tytler, then civil surgeon at Allahabad, on the Ganges, was of opinion, from observations he had made, that *Asiatic cholera* was caused by his patients having eaten *Ouse rice*. Goats were *shut up*, and fed with *Ouse rice only*, and the results were, that it brought on disease similar to that I have described in horses; and this he considered as *proof* it had also produced *Asiatic cholera* in man.

This much I know, that had he used any other grain with these herbivora, the results would have been the same. The argument at that time against Dr. Tytler's opinion was, that persons had had *Asiatic cholera* who had not eaten *Ouse rice*, or any other rice. This was, no doubt, true; but it was overlooked that they had *gorged* their stomachs only once in the day, as is the custom of natives, solely with some other equally coarse innutritious food, indigestible also from its quantity. When the vital powers were exhausted by heat, fatigue, and, perhaps, also by breathing impure air, then, I believe, Dr. Tytler's observations were perfectly correct, and his opinion founded thereon the truth. As well as I can now recollect, about 30 of these horses died; it was epizootic, because all were exposed to the same causes; it was local, for there was not the least reason to suppose it was contagious among these horses.

Four years after this I was with a corps, when field exercise was continued till the hot weather set in, and it was then suddenly stopped. A few days after, this disease began in one troop, and would have run through the corps and

proved fatal to many horses, but, cautioned by former experiences, I requested the horses might be immediately sent to gentle walking exercise after I had examined them; for I was careful not to increase it, for fear of bringing on that inflammation it was my endeavour thus to prevent, by gently increasing the peristaltic motion to unbind the intestines. Horses that looked dull, or I had any doubts about, I kept in and had clystered instead.

In India, diseases are often epizootic among dogs, camels, cattle, sheep, goats, tame rabbits, poultry, and preserved game, but these have not, in my experience, in the first instance, resembled cholera; diarrhœa supervenes sometimes in all, but is not so characteristic of cholera as the disease I have described, which, in its incurableness, is more like cholera. Poultry, in particular, show choleraic symptoms, because, to prevent wild animals carrying these off, they are shut up in some house, which they soon foul, and then breathe impure air. Sporting dogs also, from the same cause, become diseased, while the pariah dogs of villages remain healthy. I have no experience of those of large cities, except having seen them eat all kinds of filth; camels, cattle, sheep, and goats, are kept in cantounds, in general not housed.

I mentioned this disease in No. 56 of *The Veterinarian* for August, 1852; and I might close this narrative of facts, had I not read Mr. Marshall's very able paper in Nos. 66 and 67 of the same Journal, "On the Communicability of Asiatic Cholera to Domesticated Animals." But I trust I shall not be accused of presumption if I continue, and offer a few observations, perhaps not strictly veterinary: you can omit these, if you think proper, without giving me offence, for I have no pretensions to knowledge of Asiatic cholera in man, which I might have seen had I gone to the General Hospital at Calcutta. Just to show the difference between practising on man and animals, a student of mine, who had been an assistant apothecary at the hospital, told me he had administered to cholera patients, by order, castor oil with success. I have been told by several in India they had given it, and I have been called in to horses where livery stable keepers had given castor oil in this disease in the first stage, and the horses had invariably died; and you will, no doubt, say, from what you know of the action of castor oil on horses, that this was the most likely result. I mention this, because in animals differing from man considerably in anatomical structure of the abdominal viscera, and in the quality and kind of food most natural for them to feed upon, perhaps we should



not look for exactly the same symptoms of derangement of their functions, although arising from the same causes. It is sufficient that the principal symptoms are similar, as well as the morbid appearances of the parts, on *post-mortem* examination. Now I regret I cannot, after so long a lapse of time, give a minute description of the latter. On opening the abdomen of those that died in the first stage, in what is usually called enteritis, violent inflammation of the intestines was observed, less or more, approaching in colour to greenish blue, or black; in cutting open the small intestines and stomach, the contents were only a whitish or yellowish thick viscid matter, and, when this was scraped off, the mucous coat was found to be very tender, and easily peeled off; on opening the cæcum and large intestines, similar appearances were presented, with less or more feculent matter, of all kinds of consistence in different horses, except in the second stage, when it was always in a fluid state. In man, great stress is laid upon the rice-water-like ejections and dejections. Now, we know there is great difference in the blood of a horse when drawn, under any circumstances, to that of man under similar circumstances; so also is there the same differences in all its products, whether in health or disease. Dr. Tytler, who was well acquainted with the morbid appearances both in man and goats—for what I know, perhaps, in other animals—was of opinion, this disease in man and animals was identical; and I ventured to think so too, though I certainly should not have thought of expressing such opinion in print had I not seen that our opinions had been borne out by others in Mr. Marshall's paper. Some seem to be of opinion there are *two choleras*, calling one English, the other Asiatic. Now, take the facts as they are placed before us. Am I to call the isolated cases that have come under my observation in India *English cholera*, and those that were epizootic, *Asiatic cholera*? There were no differences in either, that I should do so.

In England, grain is so dear, horses are so much worked, stable management is so much better attended to, that this disease does not so often happen; whereas, every veterinary surgeon who has been in India, is aware that this is the most fatal disease there. I happened to meet a friend, a veterinary surgeon of one of Her Majesty's Regiments in the Ganges, and he told me he had had the misfortune to lose his charger, an Arab worth 1200 rupees, by enteritis, shortly before he left Cawnpore. The causes are without any specific agency quite evident: it matters not whether the stomach and intestines are directly disordered in function, by this pressure of

distension only, or indirectly also by the vital powers being diminished by breathing impure air,—whether the first or the latter is the primary cause, or both are present at the same time—the results are nevertheless the same, both in man and animals.

The causes of this disease in animals in England, I believe, is not stated; yet able veterinarians ventured to call these isolated cases *Asiatic cholera*. With much greater reason did Dr. Tytler and myself consider it so. But Dr. Tytler's experiments, so far as I am aware, seem either to be unknown to, or been overlooked by, those who have considered cholera in Europe, or these would have been noticed in Mr. Marshall's paper. Perhaps Dr. Tytler is dead. I therefore take this opportunity of mentioning the subject.

I was twice at Hurdwar, and once at Allahabad, great fairs on the Ganges, where Asiatic cholera usually prevails at the close; and in travelling, or during residence at other places in India where cholera prevailed, I did not fear contagion, for I never gave it a thought. I only disliked, as others did, being sometimes obliged to remain at such filthy places (for a large encampment, or fair, soon becomes so,) at such times. I might say the same, and with much greater reason, both of *Hamburg* and *London*. Those philanthropic individuals who endeavour to improve the dwellings of the poor, no doubt proceed in the right direction to prevent cholera; but what is the use of this without efficient sanitary laws? for, as a disease similar to cholera can at any time be produced in animals standing at picket in the open air, how much more likely is it to happen, and with greater severity, to man, in general the poorest classes, badly fed, and more over-crowded in habitation than animals, in the filthiest parts of cities, thus breathing impure air?

Look at the reverse of the above in your Journal for June last. Three lines below Mr. Marshall's paper is this remarkable passage:

“The cholera, which has of late visited Mosul and Bagdad with fearful severity, has not yet struck the Bedouins.”—(From ‘Discoveries in Nineveh,’ by A. H. Layard, M.P., in ‘Association Medical Journal.’)

I resided five years at Hissar Ferozeh, on the border of the Bicanere Desert, *where I never heard of cholera*. I crossed it from the fort of Butneer to Bahwulpore, four days' journey, walking the horses from sunrise to sunset in the cold season; and if people in any place in this world are exempt from cholera, I should say it is in the Desert, for they cannot cross over in great numbers, neither can they remain long

enough to foul a place for want of food and water; even the city of Bicanere, and the few villages on its borders; have scanty population, drink rain water preserved in reservoirs or drawn from very deep wells (100 feet), and malaria is not present, and cholera has not prevailed at these places, although there is constant intercourse with other places where cholera has happened with severity.

The occurrence of *Asiatic* cholera in Europe is, no doubt, therefore, to be accounted for by the increase of population, and the over-crowding of commercial cities: the habits and manners of living of the poorer classes in filthy, undrained places, perhaps, increasing susceptibility or idiosyncrasy more of late years than at former periods, when all this was different.\* Veterinarians have observed this in animals. We have, in our own time, seen many changes in the breeds of animals, and with these come predispositions to new forms of diseases, and fresh exciting causes from differences in the modes of feeding and management from that formerly in use, produced by changes in the commercial habits of the owners; and to all these influences the owners themselves have been in like manner subjected. The reader may smile at this, but it is, nevertheless, true.

We have seen, too, that diseases not formerly considered transferable from man to animals; and *vice versa*, have latterly been so; but, giving the ejections and dejections of cholera patients, is *no proof* of any specific agency, any more than Dr. Tytler's *Ouse rice*, which produced a disease similar to cholera, simply because it was not proper food. Therefore I doubt whether any specific agency, as contagion, is necessary for the production of *Asiatic cholera*.

In the first Burmah campaign, the horses of the Body Guard were obliged to be fed with (*Dhán*) rice in the husk, which improper food brought on disease, and many died.

The Royal Agricultural Society require those who compete for prizes to state the kinds of food upon which animals have been fed. Every feeder of animals practically knows that it is not altogether what animals are fed upon, but the manner in which this food is given. The most nutritious food is most likely to bring on diarrhœa: the animals *pitch*, as it is called, that is, fall off in flesh rapidly, instead of putting it up, unless change of food be adopted. At the same time, these animals are kept in *well-ventilated, clean stalls*. The same with race-horses and hunters. But man is trained up in the arts of civilisation, and lives in *dirty, unventilated, over-crowded, filthy places*.

\* How strangely true this appears at the present day!—ED. *Vet.*

In Germany I had 16 ducklings, a fortnight old ; these got into a foul open drain ; all were seized with cramps,\* except those that death anticipated, they fell into collapse, and died in a short time, without showing any other symptom of cholera, which might have followed ; but it was the breathing impure air from stirring up the filth that proved so quickly fatal.

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### CURIOUS CASE.

By J. HURFORD.

SIR,—Since my return to Bangalore I have been bothered with more sickness than has been agreeable ; glanders and farcy-fevers, cynanche no less than four or five, and one which is now under treatment, and is the cause of this note. I have invariably found extensive ulceration of the throat ; and my treatment has consisted of blisters, constant fomentations, steaming the nostrils, gargles, &c., with calomel, and, when necessary, tracheotomy. I operated on the present patient, and he is doing very well ; but this morning I took out the tube to close the orifice, and while waiting for some lint, I gave him a drink ; a great quantity was returned by the nostrils, but to my great surprise a quantity also came through the opening into the trachea ; there was no mistake, it was clear water, and was affected by the breathing, being splashed out. How is this ? some must have gone into the lungs, and yet the horse shows no distress. But supposing there had been no orifice, how many horses have sore throat, and how often do we see the water returned by the nose, and have we ever suspected that some of it has gone into the lungs ? and yet I see no reason why this should be an extraordinary case. The horse stood quite tranquilly, and appeared to take it as a matter of course. I should like to know your ideas ; you may print what I have written if you like.

Very truly yours.

BANGALORE ; *Aug.* 19, 1853.

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\* Dr. Brown, speaking of the cholera in 1832, says, "The character of the disease varies considerably in the different districts which it invades. Thus, I had occasion to observe that in a mining population dispersed over an extensive tract of country in the township of Shelton, the disease was attended with less collapse than in the lanes and alleys of a populous commercial town, and the mortality was, consequently, much less." The same is the case in India also. Mr. Jamieson, in his account of the disease in the Bengal army in 1817, states, "That the ground of the encampment in which cholera prevailed the most was low and moist, the water was foul, stagnant, and of a brackish quality, and everywhere not more than two or three feet from the surface of the earth, and the vicinity abounded in animal and vegetable putrefied matter ; whereas at Erich, where the army regained its health, the situation was high and salubrious, and the water clear and pure from a running stream."



# RUNNING HORSES AT IMMATURE AGES.

By MR. —, M.R.C.V.S.

IN an article in an old number of the 'New Sporting Magazine,' headed "Two-year-old Derby favorites," by the brother—as a literary sportsman—of our lamented friend Nimrod, "Craven," we find it stated, as the result of a retrospect of turf transactions, that, "to my (Craven's) humble thinking, for one racer that can bear two-years' training, at the earliest period when his powers can be made available for the purposes of the turf, a hundred are irretrievably ruined in the attempt. I look to the great two-year-old stables, and find them incapable of turning out a Derby or a Leger winner. I ponder upon fourth-class horses carrying off the Derby *as their maiden races*. I mark Amato beating Tom, and I come to the deduction which experience tells me is the rule, viz. :—that in pinning our faith on two-year-old Derby favorites—

'Fallimur, et quondam non dignum tradimus.'—*Hor.*

This is honest truth, the result of faithful observation. And to crown it with a *why* and a *wherefore*, needs no Solon of the turf or the stable: its explanation is self-evident to any man of common reflection, pretending to any knowledge of the an imaleconomy. Can a boy prematurely grown, or by good living forced to man's height and aspect at the age of 16 or 17, contend with a man, in reality as well as name, who has passed his 20th year? Nature immature is no match for nature pruned and perfected. Are these thoroughbred horses, by the "art and mystery" of the turf, to be made so to outrun nature, that three-year-olds are to perform the pursuit of five-year-olds? Has the turf attained such perfection that nature forthwith must be subservient to art? Shallow minds are deceived by appearances; and there is good reason to suspect that, on the turf, what *looks like a horse* is too frequently set down to constitute one: turf men in their superficial way of judging of horses' powers, forgetting that what has the feel of bone is not bone, neither is that tissue which has the appearance of tissue. In a word, whatever may be its exterior aspect, the animal machine at three years old is not what it will become in two years more, nor will it bear the same hard usage. Anatomists might prate in vain to a Newmarket jockey about ossification not being perfected in the horses' frame until such and such periods, and about the ends of bone being still epiphyses, the

muscular and tendinous fibre as yet undeveloped; such veterinary palaver as this would never be listened to by the *connoisseur* of Newmarket; but, when they are told by such a man as Craven, that “for one racer that can bear two-years’ training at the earliest period when his powers can be made available for the purposes of the turf, *a hundred are irretrievably ruined in the attempt* ;”—assertions such as this, coming home to their very hearts, which are too often in their purses, may and *must* be listened to.

To insist on the *inhumanity* of such a system as breaks down prematurely ninety-nine racers out of a hundred, would be, I fear, but throwing away words: the policy of it being proved to be good, poor humanity must and will ride on.

In a work recently published on the Degeneration of our Saddle-horses, it is stated, as suggestive of a remedy for this pernicious system of racing, that the King’s (or Queen’s) Plates should be regulated differently from what they are, the object being to give encouragement to running horses at four and five years of age at the earliest, rather than destroy the framework and power of such as are but three, or even two years of age. The suggestion is a very proper one—a step in the right direction; and one which, supported by others of a more peremptory character from being instituted by the jockey club, would indeed tend to do away, in a short interval of time, with the diabolical destruction of good horse-flesh, promoted by the *gambling* spirit the turf has unfortunately contracted, in preference to one which would reinstate and carry on the wise and happy objects with which racing was first introduced, and in which it did, up to a certain epoch in its history, gloriously and triumphantly succeed.

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## PREVENTION OF THE SALE AND EXPOSURE OF GLANDERED HORSES.

*To the Editor of The Veterinarian.*

DEAR SIR,—Although I am fully aware that the intention of your Journal is not to record and circulate Acts of Parliament, still I conceive that the Act of the last Session is worthy of your notice, especially as its objects are the suppression of the sale of glandered horses, and the punishment of those persons who may be found guilty of the offence. With these views I herewith send you a verbatim copy of

the preamble and the enactment, which you may either adopt or reject as you may deem proper.

Yours truly,

SAMUEL BROWN.

MELTON MOWBRAY; *Oct. 14th*, 1853.

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16 & 17 VICTORIÆ, c. 62, 63.

CAP. LXII.

An Act to extend and continue an Act of the Twelfth year of Her present Majesty, to prevent the spread of contagious or infectious disorders among Sheep, Cattle, and other Animals. [14th August, 1852.]

Whereas an Act was passed in the Twelfth year of the reign of Her present Majesty, (chapter one hundred and seven), for preventing, until the first day of *September*, one thousand eight hundred and fifty, and to the end of the then Session of Parliament, the spreading of contagious or infectious disorders among sheep, cattle, and other animals. And whereas the said Act has by sundry Acts been continued until the first day of *September*, one thousand eight hundred and fifty-three, and, if Parliament be then sitting, then further until the end of the then Session of Parliament. And whereas it is expedient that the said Act should be extended and further continued: be it therefore enacted by the Queen's most excellent Majesty, by and with the advice and consent of the Lords spiritual and temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:

1. Any person bringing, or attempting to bring for sale, any horse or other animal into any market, fair, or other open or public place where animals are commonly exposed for sale, knowing such horse or other animal to be infected with, or labouring under the disease called *Glanders*, and any person turning out, keeping, or depasturing any horse or other animal infected with, or labouring under any such disease, in or upon any forest, chase, wood, moor, marsh, heath, common, waste land, open field, roadside, or other undivided or unenclosed land, shall, on conviction of any such offence, forfeit and pay any sum not exceeding twenty pounds; and the said Act shall be read and construed as if this enactment were incorporated therein, and all the provisions of the said Act with respect to penalties or forfeitures thereby imposed, and the recovery and application thereof, shall be applicable accordingly.

II. The said Act, as extended by this Act, shall continue and be in force until the first day of *September*, one thousand eight hundred and fifty-six, or if Parliament be then sitting, until the end of the then Session of Parliament.

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## MR. HOUSTON'S REPLY TO MR. HORSBURGH.

*To the Editor of The Veterinarian.*

SIR,—Had Mr. Horsburgh, Veterinary Surgeon of Dalkeith, been as well known to you as he is in this neighbourhood, I am certain that his letter had never appeared in the pages of *The Veterinarian*. His statements are a compound of gross personality, with unjust as well as untrue reflections on my professional character; and, in order to show your readers the real value of his contributions, as well as to vindicate myself, I trust you will insert this reply in your next number.

I can afford to pass by Mr. Horsburgh's personalities with very little notice. There is a true saying become now proverbial here—"His tongue cannot slander." I feel no disgrace in having worked manually as a smith; many better men than I have done the same. Mr. Horsburgh himself, even, has done this, and with *that failure incident to his other undertakings*: surely, then, he is not the man to taunt me for pursuing a calling which was once his own. My endeavours to attain a higher position may have been successful; his have failed, though aided by friends, and evading College fees. I have increased and gained, while he has become "small by degrees and beautifully less;" until at last, in making a compulsory flight to a distant land, he attempts in vain to give me a cowardly stab, and cover the steps of his own disgraceful retreat.

Now for facts—Mr. Horsburgh says that Mr. Ritchie's case occurred "about two years ago." Allow me to give precise dates. I was called to the horse in July, 1848, upwards of *five* years ago; he *had* been fired six months, previously, by Mr. Smeaton, Veterinary Surgeon, and fired, too, without any good result, for he was still very lame. I never endeavoured to make Mr. Ritchie believe that I could "punch off" the spavin, nor did I ever state that the horse might work while under my treatment. I operated on him by what is called "punching," (more of which anon;) and, (will your readers believe it?) for the last four years and



nine months (since January, 1849), he has been regularly at work, free from lameness. The statements that he "was unable to rise," had the skin "destroyed on all the prominent parts," and "had to be slung," are fabulous embellishments, introduced by a false taste for "lying wonders" pervading the mind of that envious man, poor Mr. Horsburgh. I assert, and challenge proof to the contrary, that the horse never did lie down from pain and fever following the operation, never had sloughing of the skin, and never was slung.

We have next a dissertation, as misplaced as it is malicious, on families and persons, including the Marquis of Dalhousie, Earl of Zetland, and Mr. and Mrs. Main. The animosity and bad taste displayed herein are too transparent to deceive your readers; so to facts again.

There is not any Saïrg's bazaar in Edinburgh, making it self-evident that Mr. Main could not have purchased a horse at a place which neither has, nor ever had any existence. Nor yet did Mr. Main purchase the horse from the Earl of Zetland. Mr. Main, too, instead of being "farm manager," is steward to the Earl of Dalhousie, and is a gentleman of high intelligence, education, and respectability. Mr. Horsburgh *did fire* this horse for spavin; but the operation produced no good effects, for the lameness continued as before; and I positively state that the horse never got sound while under Mr. Horsburgh's care, though doctored by him to the tune of £5. The result of this and other causes of dissatisfaction felt by Mr. Main, was the dismissal of Mr. Horsburgh from the Marquis's practice. With that rage for writing (such as it is) so characteristic of Mr. Horsburgh, he wrote to the Marquis in India, stating his grievances; the shrewd nobleman, however, returned our friend's epistle through his law agent to Mr. Main, with orders to bestow upon it "*no notice*." Since Mr. Horsburgh's dismissal I have had the Marquis's practice, and was required to treat the case in question. I can assert that the horse had not "strains of the flexor tendons of the off hind leg," but was still lame, as he had been all along, from bone spavin. I inserted setons and applied other treatment, but never "punched three times," nor did any one else. I leave you to judge of the comparative amount of doctoring the horse underwent at our hands, when I state that for attending *two* other horses, a *cow*, and a *dog*, my whole account was £4 17s. 6d.; while for attending *this one lame horse only*, Mr. Horsburgh charged, as has been said, £5.

Now, a word or two in regard to "punching off" spavins.

I have Professor Dick's assurance that he never recommended, but always ridiculed, such an operation. He does not acknowledge as his the instrument the one figured in your last as "Mr. Dick's spavin punch," nor its relation "the iron hammer." I know that he practises very extensively, and with great success, even after failure of other remedies, the punching *on* spavin in suitable cases; and I can bear testimony to the value, indeed almost immediate utility, of this operation, when properly performed with appropriate instruments. Professor Dick does devote two or three lectures to a consideration of the pathology and symptoms of spavin, and in explanation of those kinds of hocks and horses most predisposed to the disease; but the subject of "punching" is disposed of, among other items of treatment, in a few minutes. His explanation of the effects of "punching" seems to me very satisfactory. He says, in cases of spavin, where ulceration of the bones and articular cartilages, with the usual lameness, have for some time existed, that something to hurry on and cause a temporary increase of inflammatory action in the parts affected, will favour a deposition of bone in and around the diseased surfaces, so that ankylosis becomes established, and a natural cure effected. Punching tends to promote this state of things, by increasing the inflammation in the parts themselves, directly, and, in a degree, by altering its character.

I have said, and brought proof sufficient to show, that Mr. Horsburgh has been guilty of a glaring and deliberate mis-statement of facts. He is now far away from a town wherein industry, integrity, and adherence to the dictates of morality, would have ensured alike abundant professional reputation and pecuniary reward. But alas! in "choosing the evil and refusing the good," in seeking to beset my path in this neighbourhood with thorns, and in striving to injure my professional reputation in your pages, he has only proved his own greatest enemy.

I am, Sir,

Your obedient Servant,

GEORGE HOUSTON.

PRESTON FORD, DALKEITH, N.B.

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JAMES TURNER'S LETTER TO HIS BROTHER  
VETERINARIANS.

THE tomb has now closed upon both the successful workers of our parent institution, viz.:—Professors Coleman and Sewell, of the Royal Veterinary College of London.

Peace to their manes! The former, a man of transcendent abilities; the latter, gifted with the average share of talent, in conjunction with all the requisites of a plain efficient man of business; who has left an example—after more than fifty years' devotion to the veterinary profession—of a perfect pattern to the rising generation: an illustration of the success ever attendant in this free and happy country, upon the constant exercise of industry, temperance, and frugality, when combined with integrity and honesty of purpose.

The Veterinary College of London, in embryo, was ushered in under the countenance and support of the illustrious Hunter.

The immortal name of John Hunter was appended to the first prospectus—alone a sufficient stamp of the *vitality* of the germ.

But the development of this national and useful institution has been wonderfully fostered by the coincidences of times and circumstances, the last half century having included the most Palmy days in the history of Great Britain.

In accordance with the advance of civilization and science, it was the destiny of a body of deserving men to be recognised and admitted within the pale of professionals. The one great intellect, master-mind as it was unquestionably, that presided over the infant college in the person of Edward Coleman, Esq., F.R.S., did not alone suffice; the Professor derived daily and hourly co-operation and support, through a series of years, from the renowned giant of surgery, Sir Astley Cooper, arising out of personal friendship between the two distinguished individuals of the warmest character. It will never be forgotten by our profession (never ought to be,) that on all public occasions, the great boon was brought to bear of Sir Astley's overwhelming eloquence in praise of his friend and veterinary profession.

The veterinary student was *free* in that day to nearly all the great hospital schools of London. Everything conspired in his favour; and the parent institution has struck a root so deep in the land, that its legitimate members have become recently, through Royal grace, a Corporate Body, and, therefore, a part and parcel of our glorious constitution.

*The first-fruits* of early veterinary science, admitting of public demonstration, were the successes of several army veterinary surgeons, with corresponding acknowledgments from the highest military authorities; secondly, favorable notice from our Law Courts; and, lastly, the general satisfaction of the public at large.

Well knowing that I am expressing the sentiments of many experienced practitioners, as well as myself, I congratulate the profession upon the *present* good fortune of this highly-favoured institution, in having its three scholastic chairs occupied by such talented gentlemen as we find in Professors Spooner, Simonds, and Morton,—all in the prime of life, and abounding in zeal and energy.

At length I come to the burden of my story:—there is an alloy, *all* is not smooth and serene. In that important department of veterinary science, “Comparative Anatomy and Pathology of Cattle,” the machinery at the College is deficient; the energies of that able lecturer, Professor Simonds, who presides over this division of the science, are paralysed. He has a numerous class, *but where are his patients?*

The medical body in this town are unanimous in the belief that lectures, without clinical instruction, result in failure, so far as the pupil is concerned.

As an humble member of the Veterinary Examining Board, I trust that I shall not be considered troublesome or obtrusive by throwing out a few hints which may possibly, in the end, lead to the gathering of cattle patients in a suitable locality for students.

(I may have been anticipated, and hope I have.)

The site of the new Smithfield Cattle Market, now in progress at Copenhagen Fields, is not unfavorable, as to locality for communication with the Royal Veterinary College at Camden Town.

Considering the immense flocks and herds which must weekly assemble there, the majority, of course, will fall under the butcher's knife; but for a certain per centage veterinary aid will be sought. Now, I beg leave to suggest to the Governors of the Royal Veterinary College, the policy of securing an eligible plot of ground, near the market, before it be too late, as a connecting link with their College, to which patients might be ultimately conveyed.

Brother practitioners,—a word or two upon the crying evil, “Quackery.”

Through certain information that I have recently gained from the provinces, I infer that these encroachments prevail to an enormous extent, but especially in cattle practice.



My advice to you is, don't wait for legislative help, although potent *when you can get it*, but get up a committee for a periodical publication in the *Times* newspaper, of all the legally qualified members in the United Kingdom, which must be supported by annual subscription.

Shame be it said, *quackery* even yet rides rampant in some high places, and it has, I fear, a great range among our flocks and herds.

How are noblemen or cultivators of large breadths of land to know, at such a critical moment as the invasion of a pest, the legitimate from the illegitimate practitioner? Two minutes' reference to the file of the *Times* will clear up the point, by which simple movement many scientific and deserving men may become installed in honorable posts for life, to the exclusion of the illiterate and undeserving.

311, REGENT STREET; October, 1853.

## REVIEW.

Quid sit pulchrum, quid turpe, quid utile, quid non.—HOR.

THE DETERIORATED CONDITION OF OUR SADDLE-HORSES, THE CAUSES AND THE REMEDY. THE STATE OF OUR CAVALRY, AND THE IMPERFECT SYSTEM UNDER WHICH THIS FORCE, AND THAT OF OUR ARMY GENERALLY, IS ADMINISTERED. Hatchard, London, 1853; small 8vo, pp. 113.

THE little anonymous work before us points out the existence of a degeneration we cannot deny, alleges reasons how it comes to exist, and offers remedies for its restitution, and restoration to that condition of things which existed before the grievance came into operation. The grievance is "THE DETERIORATION OF OUR SADDLE-HORSES:" a fact, we believe, too notorious for us to pretend to doubt or dispute, as existing, not in this country alone, but likewise in the sister kingdom (Ireland) as well; a country out of which, of late years, more than once, we have succeeded in procuring some of the best of our horses for the recruitment of the cavalry. Could any doubt be raised on the score of any falling-off in good horses, hackneys in particular, *in general use*, there is evidence enough in our army of the comparative deprecia-

tion and inferiority in this arm of our national force.\* This is more conspicuous in some parts of it than others; but there is no branch of the service in which it is, at present, more remarkable than in the Horse Artillery. Those who are old enough to remember—among whom we may reckon our nameless author—what noble, fine, strengthly horses in former times composed the troops of Horse Artillery, and can recollect what condition those splendid animals were in at the battle of Waterloo, must indeed have sighed when they came to see the cattle which the same troops brought with them to the Chobham camp: no more comparable to those of former days than, as our bard says,

“Hyperion to a Satyr!”

The work before us ascribes this defalcation to a scarcity, or indeed actual want, of such horses in the country; and no doubt this is mainly the cause: at the same time we must take into the account, that the Artillery, like the Dragoons, purchase their horses at a *fixed* price, 30 guineas, while the cavalry regiments are confined to 25 guineas; hence it follows, that, in times of scarcity, the article, as a natural consequence, enhancing in price, 25 or 30 guineas would no longer buy the same valuable horse it did before. And as a proof that this is a consideration which ought not to be overlooked, we may instance the horses of which our three household regiments of cavalry are now composed, as compared with the cattle upon which they were mounted as the *old* Life Guards, at the time they wore the three-corner cocked hats. In those days the horses were certainly *strong* enough, and perhaps more fit, as *weight-carriers*, for the purpose they were required than the present ones are; but then they were so inferior in point of *breeding*, that we feel quite sure the Life Guards in those times could not have gone the pace they are able to go now, neither were they so efficient as an opposing force. Let us add, however, by way of a key

\* “All other reforms in our cavalry would be useless unless this important point (the horse) be looked to. It is building a house upon the sand to organise cavalry without good horses. Government alone could work the necessary reform by importing stallions and mares of eastern blood for the purpose of breeding troop-horses and chargers for the cavalry of England.”—*Captain Nolan's Work on 'Cavalry.'*

to this seeming paradox, that in their recruitments of horses the household are not restricted in price: were they limited to such prices as 25 to 30 guineas, they might sigh "adieu" to any such cattle as they now possess. This demonstrates a scarcity of the article in the market, not an absolute want of it.

Still, admitting the fact that good saddle-horses no longer exist in anything like the abundance they formerly did, and consequently are not only not to be purchased at the same price they used to be, but are hardly to be had for "love or money;" let us now inquire into "the causes which added to the former excellence of our saddle-horses, and those which have caused their deterioration—and the remedy." Quoting from the work itself:—

"The main cause of their former excellence was the creation of what is called our 'Turf.' Doubtless, gambling and pleasure have ever been the sole objects of those who bred our race horses; but their large importations of good Arabs, followed as they were by a careful and continuous selection, not for one quality, but for a fine union of qualities, succeeded for many years in producing both, for the turf and for all useful and pleasurable purposes, the best saddle-horses in the world.

"We possess a document which throws some light on the nature of the tasks our earlier horses performed. Their stature *so late as 1764* seems to have ranged from fourteen to fifteen hands; *a horse of the latter height being considered tall*

"Referring to this document, Mr. Smith says, 'It appears that in the year 1718, twenty-three matches were made at Newmarket, and in all but one of them, the distance run was four miles. In the next year only two races are recorded. First, the Duke of Wharton's Galloway, 8 st. 10 lb., against Lord Hillsborough's Fiddler, 12 st., six miles. At Newmarket, in 1720, there were twenty-six matches, none of them less than four, some six miles. In October, the Duke of Wharton's Honeyskin, 11 st. 10 lb., against Lord Hillsborough's Speedwell, the best of *three heats*, *twelve miles*, 1000 guineas. The match was drawn. In 1721, twenty matches were run, and with few exceptions, these distances seem to have been run up to the year 1757.'

"This account of the running of our older horses is interesting, because every one acquainted with our present race-horse knows that none of them could perform a fourth part of these tasks without breaking down. We see, indeed, the

best horses, at the present day, after winning a race of only two miles, disabled from ever running again.

“If, after reading these extracts from Mr. Smith’s work, the reader will look at the portraits of such of our older race-horses as have been handed down to us by the pencil of Seymour and other artists, he will find that the forms of those horses corresponded with the great tasks they accomplished, for they had short legs, deep bodies, wide hips, and strong loins. The fine shapes of those horses show how little, as a race, they had been injured by their great performances, which commenced early in the reign of Charles the Second.

“With the exception of a single race at Newmarket, of four miles, and only run twice a year, two miles, two miles and a half, one mile and a half, and one mile, are the distances now usually run. Then how is this four mile race run by our present horses? By cantering through a great part of it. The tasks now performed, however, are enough, and more than enough, for the diminished powers of our present horses.

“Thus we see into what a vicious circle the present system of making momentary speed everything has led us. In viewing the defects of our present race-horses, as respects useful purposes, I must add that they exhibit straight shoulders, and to an extent unknown to our turf so late as thirty years ago. This great defect in our race-horses is another cause which makes it now so difficult to breed the first class of saddle-horses, and is one of the results of breeding “in and in,” for the purpose of following up a blood which has had momentary success in racing. Few people unconnected with the turf can imagine the degree of constitutional weakness exhibited by our present race-horses. The growing stock requires as much corn daily as they can eat, and for the first twelve months each has also the whole milk of a cow. It will here be said it is the early running which renders high feeding of the young stock necessary, but it is not so; on the contrary, many of the foals possess so little vigour, that without unnaturally high feeding they would be mere weeds, as they usually are when bred by persons not intending them for the turf, who in consequence do not feed their young horses so expensively. This high feeding sometimes enables those who breed for the turf to produce very large animals, but wanting that compact form which springs from much constitutional vigour in the parents. Nothing is so different as the form produced by extravagant feeding, and that which results from much constitutional vigour.

“It is curious to observe the helplessness of our thorough-bred foals, which usually cannot move about for some days



after being born. On first observing this I thought it natural, but soon found it was the pure effect of constitutional weakness in the parents, as the foals of all other breeds of horses throughout the world run about as soon as they are dropped.

“Notwithstanding the grant of public bounties to our turf for the encouragement of a fine breed of saddle-horses, we cannot in the absence on the part of Government of any attempt to influence the proceedings on the turf, be surprised to find that the Jockey Club met the growing weakness of their horses only by giving them less to do, in other words, by giving them slighter tasks to perform when they found the old ones had become too severe.

“The Jockey Club, as a body, being content to see their horses lose every quality but speed, no individual of that society can be expected to make an effort to arrest this evil by taking a course in his individual capacity calculated to diminish the speed of his horses, so long as speed alone is the only quality required under the existing system of running.”

Premiums were granted by government, “under the name of King’s or Queen’s Plates” for the encouragement of racing, through the improvement of our national breeds of horses.

“These bounties pass under the names of King’s or Queen’s Plates, because paid out of the privy purse, and the Crown obtains the money to meet this special disbursement for the benefit of the public; yet those who receive these bounties make to the public no return; yet surely when the Jockey Club began to diminish the tasks formerly so well and so long performed by their horses, this downward course should have been met by Government advising the Crown either to suspend the payment of these bounties altogether, or to increase their amount to an extent which would enable it so to influence the proceedings of the turf, as to get there maintained the old standard for regulating the tasks the horses were called on to perform. Instead of taking one of these obvious courses, the Jockey Club was allowed successively to diminish the tasks which for so many years our race-horses had so well and so easily performed.”

King’s plates, at the time, when one hundred guineas was worth, and thought a great deal more of, than such a sum is at the present day, and when the contest consisted of heats of four miles each, were held in much higher estimation than they are in our time; and, there can be no doubt at that day, operated very influentially in providing breeds of horses pos-

sessing strength, as well as pedigree, which, themselves, by crossing, doubtless, diffused the same valuable qualities through half and three-parts bred horses. Now, however, although the prize to be contended for continues the same, that the trial itself is rendered one of a much easier description, the same kind of horse is no longer required for the task, and the "King's plate horse" is found hardly a stouter built horse than the one entered for any stakes requiring speed rather than endurance. "If, however," as our author says, "we are to continue granting public bounties for the turf, it is surely desirable to obtain for the public some return; and the plan proposed in the work is the following one:—

"The plan I propose rests on a sound principle—that of sharp competition amongst the breeders of our race-horses to obtain very liberal bounties, but under conditions which should render the outlay one of public utility.

"It is impossible to determine, *à priori*, or until some trials have been made, the exact amount of bounties that will suffice to secure to the public the object in view. Probably three or four hundred pounds would be about the sum to award to the winners of certain races, making no allowance for age. How many of such races shall be run in the course of a season can only be finally determined by gradually feeling our way in the new direction. For the first few years, the aggregate amount of bounties annually required would be much greater than after sufficient time had elapsed for importing a considerable amount of fresh blood.

"Government would only have to determine the nature of the tasks to be performed for which it granted the new bounties, leaving to the owners of the horses to find out the best mode of managing them. This would not fail to succeed if Government only sternly maintained a fixed standard for measuring the powers of the horses. Under this four miles with heats should be the shortest distance run for which the new bounties were granted. One or two races in the year should be five miles and heats. We need not fear the effect of these distances being evaded, as is now the case with the four-mile race, yet maintained by allowing the horses that start for it to do a little more than canter during a great part of the race. Why? Simply because now the proprietors of such horses are all in the same boat, by all possessing horses unfitted for running the whole of that distance. Thus it is not worth any man's while now breeding horses for our turf

to change the nature of his stud on account of this one four-mile race. But grant liberal bounties annually for several four-mile races, and you will make it the interest of all who start horses for those races to breed such as they think best calculated to win them. One of the many advantages resulting from this plan is its simplicity, requiring Government only to determine the nature of the tasks to be performed; namely, the distances to be run, and the weights to be carried, leaving all the rest to be worked out under the principle of competition by the owners of the horses."

We quite agree with the author in his views touching the bad consequences of racing, as at present conducted, on our breeds of useful horses. The turf has unfortunately become an arena of gambling, rather than one of diversion or amusement; and, to make it worse, in recent days, men of *all* denominations almost have ventured, through cunning agents, their money on the uncertainty of events on the turf of which they possessed not the slightest knowledge, never even having seen one of the horses who were to be the competitors for the race, on whose power and speed their gains or losses depended. Sporting men care little about the breed or description of the horses they match, providing they show capability of winning the prize; under which circumstances, we see no reason why they should not be quite as well pleased, supposing the race were made four or five or six miles long, as one or two. Horses with certain strength of frame would sustain a long race as well as the present premature weak breeds do a short one; nay, they would do so better, because they would not be permitted to enter on such a course before they had arrived at mature age, and were in possession of their fullest powers. In this manner, racing might, under certain amended regulations on the part of government, together with the concurrence (which we should not anticipate any difficulty in obtaining) of the Jockey Club, be made at once the source of every gratification and diversion derivable from it, and at the same time the fruitful originator—the base-work, in fact—of the best-bred hunters and hackneys that can be produced.

But this reform in the rules and regulations of the turf would avail little or nothing, did we not go at once to the

*fons et origo* of the business, viz. to the *breeding* of our stock. The "in and in" system, selecting sires and dams, seeking after speed and successful running, to the exclusion of other properties, seems to have been carried at last, however successful it might once have proved, to degeneracy in regard to the horse of power and endurance. He seems to want fresh blood, or a renewal of blood, with the breed of the race-horse. We derived our first blood from the Arab, and to the Arab we must return for the required re-invigoration. Captain Nolan, in his work on "Cavalry," expresses the same opinion, "The blood our (Cavalry) horses require, is not that of our weedy race-horse (an animal more akin to the greyhound, and bred for speed alone), *but it is the blood of the Arab and Persian*, to give them the compact form and wiry limb in which they are wanting." But we must take care to procure a *pure* Arab—one of the *first* class. "Most of our Arab horses, which have of late years come to this country, have not been of the *first* class, being purchased on the *coasts* of Eastern countries.

And, "while most of the Arab horses which have of late years come to this country, have not been of the first class, being purchased on the *coasts* of certain Eastern countries, by persons having little acquaintance with horses beyond that of profit and loss in buying and selling them. Thus, while the Arab horses can only be purchased in the Desert at high prices, no one either in England or India will now give those prices for any class of Arabs, seeing that they have very little marketable value here since discarded on our turf. Still, even under this discouragement, an Arab horse now and then arrives in this country, having much merit, and in breeding from which good stock has been obtained for every purpose, save that of competing on the turf with the speed of our present race-horses. The Arabian horses, as found in the Desert, are not without speed, as was shown some years ago at Goodwood; but they can only run at their full stretch for about half a mile. At a hand gallop, and under a burning sun, their endurance is scarcely credible, and their value in the Desert rests on the distances they can travel at that pace, without fatigue, or being attacked by staggers from long exposure to an ardent sun. When a horse has acquired in the Desert reputation for this power, a large sum of money



can be obtained for him, as the life of a freebooter is often made to depend on the endurance of his horse. . . . .

“Whenever competent judges shall go into the heart of the Desert, ready to give high prices, they will obtain very valuable horses, but such persons must look to fine form and true action, as well as endurance. On no account must they select horses with straight shoulders or weak loins. Neither must they object to a horse on account of *low stature*, because when our system of feeding is applied to small but vigorous Arabs, the progeny obtained from them will, like that obtained from their predecessors on our turf, be only too much disposed to acquire high stature, in doing which they, after a time, wholly lose the compact and strong form of their ancestors.

“There is no doubt that the stature of our early race-horses did not exceed fourteen hands, while that of our present ones is rarely less than sixteen hands, and often more, while they have lost the fine symmetry of their ancestors, that performed so long and so well great tasks.

“Nothing is more certain than that there are Arab horses to be found more agreeable to ride than any others in the world, save a very few of our thorough-bred, or nearly thorough-bred, horses; but these are now become such rare exceptions as only to make us regret the more that the great mass of our well-bred horses are become so bad for all useful purposes. Even those that are so agreeable are usually disposed to lameness when ridden at a quick pace on hard roads, and can rarely carry more than very light weights.”

It does not appear that the qualities inherent in the Arab himself, however high in caste, are such as, in a general way, to recommend him to an English rider; neither are his native properties improved by cross and cultivation; still, he possesses the *blood* in his veins which we want—the *stamina* we require or ought to seek for, and which we are rapidly losing in pursuing the same system, with the same blood, *ad infinitum*. We must not expect, however, to derive the meditated advantages from the Arab, on the first, or the second, or even third cross probably; though ultimately there would seem every probability of our attaining so desirable an end, and thereby improving not only our breed of racers, but eventually that of our hunters and hackneys as well, to an incalculable extent. The experiment is worth making, it bids

fair for success ; but to be successful, it must be persevered in—*long and patiently persevered in*—ere we can expect to arrive at the hoped-for goal.

Having been carried thus far with a work which has no stated author, owing to its being on a subject to Veterinarians of first-rate import and interest, we may, before we close our review, perhaps be allowed to venture a conjecture or two about as to who its author may be. He is, we should opine, a cavalry officer—a *ci-devant* one, probably ; since he speaks of events over which some forty years and more have now rolled. He is evidently a judge of horses, and well acquainted with military affairs and manœuvres. And the present is his *second* work—we think we have his *first*, though we cannot just at present lay our hands upon it—on a topic which, we repeat, will not fail to engross the fullest attention of every one engaged among or fond of horses ; and to him we would say, “read the book, and reflect upon the matter it contains ;” and when you have so done, time and leisure permitting, favour *The Veterinarian* with your opinion on matters so closely concerning us all as a community which lives by the well-doing and improvement of horseflesh.

### Foreign Department.

#### MEMOIR ON THE COMPARATIVE PATHOGENY OF THE EPIDEMICS AND EPIZOOTICS ENGENDERED IN THE MARSHES OF THE TEIKE.

By DR. ANZELON, of Dieuze.

*Report of the above laid before the Royal Academy of Medicine  
of Belgium,*

By M. S. VERHEYEN, Professor at the Veterinary School of Brussels.

GENTLEMEN,—The study of epidemics or epizootics which decimate both the human and animal populations, with the search after the causes engendering them, constitutes a vast problem, the solution of which is intimately bound up as well with the physical and moral amelioration of man, as

with the wealth conferred on him by healthy and vigorous breeds of cattle.

On every side whence life emanates, Nature has sowed in profusion the germs of death. To make proper use of one, while we annihilate or neutralise the others, constitutes the incessant employ of succeeding generations.

If the elements of destruction concocted within the vast laboratory of nature often elude every investigation of human sagacity, some there are, on the contrary, whose action is so invariable, that their correlation, as cause and effect, admits of being framed into laws.

Into this category of causes will enter such as are *malarious* in their origin (*marécages*). Though nobody disputes the grievous influence of paludian effluvium, yet are we too much in the habit of regarding it in a state of isolation: with few exceptions, medical men have not extended their views beyond the human species, while veterinarians have confined theirs to domestic animals. The indissoluble laws uniting man to animals whom he has domesticated, subject them to the same natural phenomena: the good or the evil experienced by one becoming equally the lot of the others.

The comparative study of these morbid causes, and of the effect they produce on the different species of varied organisation, allows a vast field for investigation. In proportion as this field be gleaned, it becomes apparent how capable brute pathology is of lending aid to human medicine, in the same manner as comparative anatomy renders service to physiology.

At the same time, it is necessary that etiology, a branch of medical science still so obscure, should quit the beaten track. The study of morbid causes cannot acquire any positive base without calling to its aid nosological geography. This scientific branch teaches us the reason why certain diseases are found in certain countries and certain climates, while elsewhere, in situations where the same conditions are found in less intensity, or are absent, the same diseases exhibit either only traces of this existence, or are unknown.

Dr. Anzelon has entered on this fertile path. He practises in a country wherein marsh-land constitutes the surface for several miles, communicating with the swamp of Lindre-Basse. He in a general manner demonstrates the gradation from intermittent fever to the fatal typhoid fever of man, and from the aqueous cachetic to the fever *charbonneuse* of animals. Paludian miasm, to generate influences so varied, must meet with an agent augmentive of its power, which agent is heat. Under the influence of humidity, it gives rise simply to in-

termittent fever and aqueous cachectic ; with the concurrence of a burning summer, the danger becomes augmented, and we see generated a series of pernicious fevers, both typhoid and *charbonneuse*. Such phenomena are not confined to the province of Dieuze ; they break forth at every point of the globe under the pressure of parallel conditions.

The fever of man and the *charbon* of animals are alike of ancient date. Their historical era opens with the plagues of the Egyptians, and up to our own age do they continue to exist. Their ravages extend from the polar circle even to the tropics, without sparing the middle latitudes. Alpine pasturages are no more exempt than the maritime ones. And *malaria*, if not the unique, is at least the principal cause of these grave affections. According to the degree of harmful power the sun has upon the miasm, animals contract either *charbon* or the aqueous cachectic ; the concomitant diseases of man being intermittent fever, fatal typhoid, yellow fever, dysentery, scurvy, and paludian cachexia.

In Siberia, where the winters are long and severe, with short and searching summers, and where exist innumerable lakes and marshes, some of which measure some thousands of square *werstes*, every year, about the end of June, the *Jaswa* or *charbonneuse* fever begins to rage, preferring for its spread localities consisting of one vast plain of marsh. If, at the time of the hot weather, animals are drawn off these dangerous pastures and conducted upon the heights of Altai, they become exempt from this terrible pest, which in 1784 destroyed 100,000 horses.

France, as well as other countries, has suffered from these plagues. Indeed, almost all the principal epizootics of this (*charbonneuse*) character which have spread over Europe, have derived their origin from the South of France.

We must not pass over unnoticed the province of Liege, with its accessory causes, from the periodical overflowing of the Meuse, the Visdne, and their tributary streams, and as a principal cause their mode of watering their beasts. Their watering places consist of ponds made by the rains, which in summer go in part dry, where the cattle then find no water save what is muddy and saturated with paludian elements. And these ponds make so many small swamps spread over the surface of the country.

Marsh water is as noxious as the paludian miasm itself, a fact the ancients were not ignorant of. To men making use of such water, it was that Hippocrates applied : *splenes semper esse largos, plenos et compressos*. Vitruvius had observed the same thing on the sheep of the Island of Crete. Expe-



rienced butchers know well, by the volume of the spleen, in what countries the animals they slaughter were bred. Two veterinarians, who have reported on the subject, suggest, for the extirpation of the scourge, that the watering places be done away with, and a regular system of cultivation established.

From what we have said about the nature of the sub-soil, we believe we might with advantage unite drainage to the hygienic measures proposed. The influence such practice has exerted in ameliorating the sanitary condition of rural populations and domestic animals in England and Scotland, constitutes a fact upon which much stress is laid by the sanitary reports of Great Britain. Intermittent fevers, and the aqueous cachectic, have almost entirely disappeared from the county of Perth since drainage has been practised there upon a large scale.

There exists an ultimate correlation between paludian disease and the culture of the soil. In countries wherein agriculture is prosecuted to perfection, and the soil, thus to say, has no rest, and whose population is compact, intermittent fevers are of rare occurrence. Whereas, where the earth is left uncultivated, and becomes covered with spontaneous luxurious vegetation and thick forests, *deboisement* is practised on a large scale, and the human and brute inhabitants are but thinly sown, malaria is favoured.

Paludian affections are not at all times, then, confined to veritable marshy places, though the effluvia, whatever be their origin, are not the less impregnated with their deadly activity towards both men and brutes.—*Réc. de Méd. Vét.*, Sept. 1853.

(To be continued.)

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#### EPIDEMIC AMONG POULTRY.

M. BRICE, sugar-refiner, at Champigneulles, near Nancy, lost in four days, of the disease, 125 hens, 80 poulets, and 3 turkeys. The symptoms observed were, a notable alteration in the voice, its tone becoming less clear and sonorous—graver, having a catch in it, like a plaint repeated at short intervals. This is the earliest sign of attack. Its walk is constrained, appearing painful and automatic; the hen stops as though seized with a sort of languid wearisome prostration; soon it utters a plaintive cry, walks on again, and again stops, and so continues to act for an hour or an

hour and a half. She no longer is occupied about herself, but is careless about her eggs, if sitting, and negligent of her chicks. To these we may add another pathognomonic sign, which is the sudden discoloration of her crest, growing, with the exception of the superior papillæ, completely pale. And during this period of paleness of crest, the hen appears restless, strikes her head sharply, as though something annoyed her; and scrapes her beak against the ground to get rid of some thick mucous matter sticking to it. At times, this mucus is so viscid, that the hen, making violent retching efforts, in part opens her beak, letting us see the interior, which is filled with mucosities, showing together the two divisions of the beak. Her alvine dejections now turn of a yellow colour, a citron yellow, having an infectious odour; the crest from being pallid, turns of the blue of wine-les, it is *cyanosée*. This symptom is the *avant-courier* of death. The hen is seized with convulsive flapping of her wings, her body all over experiences a sort of nervous trembling; the head falls listlessly, the beak drops upon the ground; the power of motion is lost; ultimately, the hen sinks and expires.

Another constant symptom, and a palpable one, is the elevation of the temperature of the body, which rises from the invasion of the malady, and continues until death. And so remarkable is this increased heat, that it is found to continue for even upwards of four hours after death. If, at this moment, we examine the skin underneath the belly and upon the ribs, we perceive it to be rose-coloured and everywhere normal; but that, at a later period, it is covered with black patches, or bluish ones, of variable dimensions, the skin then being *cyanosée*, as with persons dying of cholera. With all the hens that die in this way, there is as much difficulty in plucking out the feathers as with healthy ones.

*The duration* of the malady does not exceed three or four days.

*Cadaveric lesions.*—In all the hens I have examined there has existed uniformity in the appearance. The flesh has to remain unaltered. But within the beak, upon the palate, in the nasal fossæ and upon the tongue, were found numerous patches, some isolated, some agglomerated; and near the commissure of the beaks, I have seen twice or thrice, little red pimples surmounted with a whitish prominent head.

The pharynx and beginning of the œsophagus are somewhat injected, without any thickening of their membranes. The supplementary stomach, which in a fowl in health is of smaller dimensions, is enlarged in one subjected to or that

has fallen a sacrifice to this disorder, The cavity is filled with thick, tenacious mucosities, such as we have seen the first troubled with during life. And if in the gizzard we scratch off with our finger-nail the epidermis covering it, we shall discover in this the same lesions which we found in the supplementary stomach, *i. e.*, injection and corrosion.

The intestines also present, scattered about, traces of inflammation, which grow fainter in the posterior ones.

The liver is the principal organ whose alteration attracts notice, for, in some it is a yellow or pale coffee colour; in others it has more of the ochre cast.

*As to treatment*, I have tried none: I have deemed it more prudent to employ measures of sanitary policy. *This is a contagious affection.* And as a radical measure of prevention, I have recommended that the whole of the poultry of any one yard, when once the epizootic has appeared among them, to be destroyed.—*Réc. de Méd. Vét., September, 1853.*

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## STATE OF MEDICINE AMONG THE ARABIANS, WITH THEIR MANNER OF VIEWING DISEASE.

By M. M. J. GOURDRON, at Naudin, Ex-Veterinary Surgeon of the  
Army of Africa.

THE study of veterinary medicine, like that of human medicine, presents no other interest in our estimation than one of curiosity, there being nothing to derive from it anywise of useful application. With the Arabs medicine hardly merits the name, resembling nothing so little as an established science; reduced as it is to certain practical and barbarous routines more or less partaking of superstition, unconnected by any idea of result, save in the absolute belief of certain signs of fatality which every animal carries about with him.

Veterinary medicine is without a name, and consequently, excepting in the diviners (or sorcerers), we have mentioned, has no special representatives. Every horse and cattle-owner treats his beasts according to his own notions, without calling in any neighbouring aid. Indeed, we never see any of the people more fit or ready than others to lend assistance, either in the treatment of diseases or operations, or in reasoning upon their causes or symptoms. In this respect all seems to be upon the head of perfect equality.

Human medicine has its *Mebibs*, who are commonly *marabouts*, who are at times willing to lend their aid to horses, whenever these be of noble race. Still we suggest that, notwithstanding their title to the estimation in which they are

held, they are by no means calculated to inspire us with any more confidence than their co-*religionaires* possess. They have for assistants the Moorish and Jewish barbers, who are at once surgeons, dentists, and physicians, and whose surgical art is reduced to three operations, bleeding, cupping, and cauterisation by fire, which they employ against every sort of pain.

Beyond this, medical science amounts to nothing with either the one or the other, and we seek in vain for tradition of the works of Arienne, Rhazes, Albaïasi, and other eminent physicians, who have shone bright in the Arabian nation. Most of their ordinary remedies amount to nothing but the product of superstition and fanaticism,—such as charms, signs, secrets, invocation to this and that Saint, the water of such a fountain, &c., or else consist of ill-chosen, barbarous proceedings, for the most part fruitless, though always accompanied by the sacramental *in cha Allah!* (God wills it!) This renders medicine of ready practice among the Arabs; for if the sick recover, honour reflects on the doctor; though, if the patient dies, either God or his destiny—*el Mactoub*—willed it.

The same tenets are maintained for veterinary medicine, with the simple difference that it is in a greater number of hands, of *Mebibs* at first, who add to their name for the purpose, *Mebibs-it-avud* (horse doctor), and afterwards proprietors themselves, who conform to their rule. Nevertheless we must state that the decisions of the *Mebibs*, however absurd they may be, always seemed of greater importance in the eyes of the natives, through a “blind confidence which they can possess in such dignitaries.” Ordinarily, these *Mebibs* succeed by assuming a religious zeal in attracting the veneration of the Arabs, and this sentiment becomes enhanced in credulity by them through the acquired persuasion that every one of the *Mebibs* is possessed of a secret which he has derived from Mahomet, which becomes transmitted down from father to son as a sacred legacy.

According to the Arabs, all diseases are supposed to have preservatives, which consist either in prayers inclosed, like the genealogical *hudje*, within a little bag hung round the horse's neck, small balls of earth, pieces of paper, and other charms of the kind, which are said to protect from lightning, and from the ball of the enemy; or else a chapelet, a defence against a wild boar, the claws of a lion, and other sensible objects always on sale, with blessings by the marabouts, whose influence in preventing the *zidri* or farcy, lamenesses, and dan-



gerous wounds, are not less powerful, according to the Arabs, than is, for us, that of sulphate of quinine against fever.

For a similar reason, they regard, as signs of fatality, such as are the veritable causes of disease, and which are furnished by the colour of the coat, the direction of this or that curl of hair, the presence of certain spots—for example :

A horse having upon his forehead a white star mixed with red (chesnut or bay), or mixed hairs upon his nose, is destined to receive slight wounds as well as his rider. A white foot with black spots announces the same. Bay horses having neither white marks upon the forehead nor black hairs upon the back, will run a risk, among other mishaps, of being killed, &c. &c.

The Arabs take care not to divulge these ominous signs to Europeans, for fear of the ill-favoured eye, with which all Oriental people regard with dread everything connected with foreigners, not only on account of their horses, but on their own and their family's account. Neither do they neglect any means of turning aside from the person mounting, the fatality of their look ; so they fasten round the neck of the foal a cord of dromedary's hair, to which are suspended bones of the dog, shells, and a little blue stone, or else they conceal the talisman underneath the mane or attach it to the tail. If they perceive that a stranger has particularly regarded one of their horses, they do not permit him to approach before he has pronounced the *in cha Allab!* after the manner of exorcism; and if soon afterwards some disease sets in, they rest persuaded that the cause of it is owing to this pernicious look ; when there remains no other resource to chase away the malign influence than to call in a sorcerer, who delivers the animal by a particular ceremony, consisting in breaking an egg upon the forehead of the sick animal and pronouncing certain magic formulæ. The charm broken, the patient ought to recover; if not, God has forbid it.

The art of diagnosis is, with the Arabs, little in advance of their etiological knowledge, since they never give themselves the trouble of studying diseases in their progress, their symptoms, their general and destructive characters. They do not even know that the disease before them, and of which they can be assured of the existence, is characterised by an organic disorder easy of detection. They must, in fact, behold the disease, to believe in its presence; and it is in this case alone that they make use of remedies, which they know and adopt according to what they remember to have seen done to others, and always after the same manner, in the impossibility they experience in discriminating between

diseases. So, every kind of cholic and vertigo is a bowel disease; every running, coryza; bronchitis, pneumonia, and glanders, is the *khangni*; every disease of the foot, ringbone, corn, sandwash, &c. is the *ghelta*; and every kind is treated in the same manner, in such way as diseases of the eyes and *zidri* or farcy, mange and small pox.

In every case, as they have entire confidence in these remedies, they never give themselves any alarm about external or superficial disease, however serious it may be, in the hope that it necessarily ought to yield to the treatment they employ for it—that is, invariably the same for the disease in all its stages.

As to internal affections, they comprehend their existence, providing they discover at the same time some external disease palpable to them, upon which they direct all their attention and all their remedies—whether there be any relation or not between the internal disease and the principal one. Otherwise, that this may not be the case, they must understand the nature of that general disease and the action of the causes producing them, together with the nature of those causes themselves. They never suppose, for example, that the air is vitiated, capable of exerting a deleterious action, or that through the bad quality of aliment, or an excess of fatigue, or any other analogous cause, it can produce alteration in the blood and speedy death; so that when death supervenes in such a case, they ascribe it either to usage or to old age.

From this, we may imagine what alarm is caused them when the animal leaves off eating, without their being able to discover any external symptom to account for it; their medical science is thus all abroad, and, knowing not what to do, they have recourse to imprecations, charms, &c.

Heaving of the flanks, distressed respiration, fetid breath, and other analogous symptoms, have, in their estimation, but feeble importance; or, at the most, indicate to them that a disease is in existence, which it is not in their power to cure, so that it often happens that a disease of the chest may run through parts of its stages without creating disquietude to them, and, consequently, without being subdued. They know only whether the disease continues, or changes into chronic bronchitis, or hydrophorax that then the animal is lost; when, therefore, they promote his end, by giving him green grass, with a view, they say, of killing him outright, or of curing him.

The sole notion the Arabs possess relative to the influence of the general causes on the organisation of animals, consists in the necessity of guarding against atmospheric variations, such as hot, cold, rainy, damp weather; added to which, is it not

on account of young animals, and particularly the horse, that they employ to this end, precautions, consisting especially in thick clothing of dromedary's and sheep's wool, called *djettal*, under which animals are protected from harm. But, in general, oxen, sheep, goats, dromedaries, apes, and mules, are exposed to all rigorous and intemperate weather, without therefrom any precaution being taken.—*Réc. de Méd. Vét.*, September, 1853.

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## Home Department.

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### ON THE HEREDITARY DISEASES OF HORSES.

By FINLAY DUN, Jun., V.S., Lecturer on Materia Medica, &c., at the Edinburgh Veterinary College.

#### PRIZE ESSAY.

(From the Journal of the Royal Agricultural Society, vol. XIV.)

#### THIRD PART.

(Concluded from p. 591.)

*Diarrhœa* and *Colic* are to certain extent hereditary, inas-much as they are very prone to attack horses of particular form and constitution, as those with narrow loins, large flat sides, and of what is generally termed a *washy* appearance. If such animals be overworked, especially soon after being fed, if their food be suddenly changed, or if they be allowed an unusual quantity of fluid, they are almost certain to be attacked either by purging or colic. The tendency to these diseases appears in such cases to depend on a want of adjustment among the different organs of the body; a want of balance amongst the different functions of digestion, circulation, and respiration.

Many farm-horses, as well as others without much breeding, are remarkable for consuming large quantities of food, for soft and flabby muscular systems, and for round limbs containing an unusual proportion of cellular tissue. These characters are notoriously hereditary, of which indubitable evidence is afforded by their existence in many different individuals of the same stock, and their long continuance, even under the best management and most efficient systems of breeding. Such characters indicate proclivity to certain diseases, as swelled legs, weed, and grease. If horses of this

description stand long, the circulation of the blood through the limbs is retarded; for, as the contraction of the muscles which materially aid circulation are wanting, the blood in the veins rises with difficulty against its own gravity, while the soft and lax condition of the venous coats, and of the muscles in contact with them, permits the passage of the fluid parts of the blood, giving rise to a serous effusion which is soft and pits on pressure. This anasarca condition, although troublesome and frequently recurring, is easily removed by friction, exercise, or a little physic, and does not unfit the animal for ordinary work.

But the same conformation and constitution which induce simple swelled legs, also give rise to the more serious affection known as *weed*, or a shot of grease. This consists in a disturbance of the balance which naturally subsists between the waste of the system and the supply of new material to repair that waste. Food is assimilated in larger quantity than the wants of the system require, the chyle so formed accumulates in the absorbent vessels and glands, which become in consequence irritated and inflamed. That part of the absorbent system situate in the hinder extremities is usually the principal seat of the disease. The animal suddenly becomes lame, the inguinal and other glands in the groin become enlarged and very painful, and the swelling and pain gradually extend downwards along the course of the absorbents, whilst the limb becomes a great deal larger than its natural size. There is, at the same time, a good deal of constitutional fever, with a full and bounding pulse. The swelling of the leg is in the first instance inflammatory, being hot and tender, and the skin over the part affected, hard and tense. Such swellings may by judicious treatment be removed; but, in cases of a chronic character, or where the same limb has been previously affected, lymph is effused, forming hard and nodulous and even diffuse swellings, which often cause lameness by interfering with the motions of the joints or tendons. These indurated swellings must be carefully distinguished from the serous effusions above noticed, which, although giving the animal an unsightly appearance, do not materially impair his usefulness.

*Grease* consists in a morbid condition of the sebaceous glands of the horse's heels and fetlocks. It occurs in various degrees of intensity; sometimes as a mere scurfy itchiness of the skin about the fetlocks, more commonly of the hind extremities; sometimes attended with much inflammation, causing great heat, pain, and swelling, and an ichorous fetid discharge; sometimes causing falling off of the



hair about the heels, and the formation of deep cracks and fissures; and sometimes becoming so violent and inveterate, as to cause aversion of the sebaceous glands, formation of granulations, and secretion of pus, constituting the loathsome complaint termed *the grapes*. There are few diseases better deserving the epithet of hereditary than grease, and few in which the hereditary nature can be more easily discovered and traced. Almost every practitioner can bring to his recollection cases showing the tendency of this disease to descend from parent to offspring. A friend of mine some years ago purchased a valuable four year-old entire horse, adapted for agricultural purposes. When bought, he appeared perfectly sound, and his limbs were nearly black, well formed, and fine; within a short time, however, they became thick and greasy. And, although the mares to which he was put were perfectly free from such faults, the progeny have shown, in every case where they can be traced, unmistakeable evidence of their inheriting the greasy diathesis of their sire. They have all been found liable to swelled legs when they stand idle for a few days, most of them have been the subjects of repeated attacks of weed, all are affected, particularly in spring, with scurfiness of the skin of the hind extremities and excessive itchiness, and lose at a very early age their flatness and smoothness of limb. The faults occur to a greater or less degree in all the stock of this horse by many different mares, and are distinctly traceable to the third generation. But, although grease is undoubtedly hereditary, and is therefore readily induced by comparatively simple causes, still it is frequently caused, and is always aggravated, by neglect of cleanliness, and of this there is ample evidence in the fact, that it is most common in foul and badly managed stables, and where no pains are taken to keep the horses' feet and legs clean and dry.

Inflammation is of two sorts, common and specific. These differ from each other in their symptoms, their progress, and their termination. Common inflammation is accompanied by effusion of lymph and suppuration, has usually a particular seat or locality, is tolerably regular in its course, and tends to a healthy termination: none are exempt from its attacks, and it is seldom hereditary. It is exemplified in the healing of wounds, and in the so-called phlegmasiæ, as pneumonia and pleurisy. Special or specific inflammation, on the other hand, has peculiar symptoms, is not necessarily localised, but may affect more or less the whole system, is very variable in its course, not easily subdued by remedial measures, and seldom entirely cured; not easily produced

in healthy subjects by extraneous causes, but producible by inoculation, occurring in animals of certain constitution, and owing its development, in great part, to hereditary predisposition. There are three subdivisions of specific inflammation—the rheumatic, occurring in the various sorts of rheumatism, and nearly allied to it, the gouty, which, however, is peculiar to man; the scrofulous or strumous, occurring in pulmonary consumption; and the syphilitic, also peculiar to man, but occurring in the horse in the form of glanders. In the horse the two latter diatheses are more intimately connected than in man, and often concur.

*Rheumatism* is neither so common, nor are its symptoms so well marked, in horses as in cattle. When, however, it does occur in the horse, it manifests the same well-known appearances which characterise it in all animals. It affects the fibrous tissues of joints, the coverings of muscles, tendons, and ligaments, and the valves about the heart and larger vessels, and manifests a peculiar tendency to shift from one part of the body to another, often affecting in succession all the larger joints; at one time chiefly located in the neck, and at another in the back and loins, while in many of its more acute attacks it appears to involve almost every portion of fibrous and fibro-serous tissue throughout the body. In all its varied types it exhibits a full, strong, hard, and unyielding pulse, caused by the inflammation involving the serous and fibro-serous tissues of the heart and circulating vessels. During its existence various excrementitious matters accumulate in the blood, and its fibrinous constituents are found to exceed their normal proportions, as indicated by the production of the buffy coat on the blood. In severe or badly-treated cases the inflammation is very apt to be transferred from the joints and muscles to the heart and its investing membrane, and it is the danger of this change in the seat of the disease that renders rheumatism so formidable, and often so fatal. It always leaves the parts affected so altered as to be extremely predisposed to subsequent attacks; and it is more than probable that this altered condition is reproduced in the progeny of rheumatic subjects, and constitutes in them the inherent tendency to the disease.

Horses sometimes suffer from rheumatic inflammation in the fibrous sheathing envelopes of the muscles of the neck, constituting what is popularly known as *the chords*. When thus affected the animal is very stiff, remains as much as possible in one position, and is unwilling to bend his neck either to one side or another, or to elevate or depress his head. There is always more or less fever, with a strong full

pulse. Sometimes, as in lumbago in the human subject, it affects the muscles of the back and loins, causing stiffness, tenderness, and pain, which are especially evinced on moving or turning the animal. These rheumatic affections are very readily produced in predisposed subjects by exposure to rain and cold, especially when accompanied by over-heating or exhaustion. Rheumatism sometimes occurs in horses as a prominent symptom of that epizootic affection which usually receives the much-abused title of influenza. In such cases the rheumatism is of a somewhat more sub-acute or chronic character than common, and is accompanied by that low debilitating fever so often the concomitant of epizootic maladies. It usually affects all parts of the body susceptible of the rheumatic inflammation, is attended particularly by those symptoms which indicate disease of the heart and pericardium, as an irregular intermittent pulse, and often terminates fatally by effusions into the pleuræ or pericardium, thus causing death by arresting the motions of the heart. As we shall have again to notice rheumatic diseases when speaking of cattle, we leave the subject for the present, and proceed to the scrofulous or strumous inflammation.

The *scrofulous diathesis*, or constitution, is not uncommon amongst horses. It assumes many degrees of intensity, and predisposes to many diseases. It is most apt to discover itself in horses with narrow chests, large flat sides, weak loins, soft flabby muscular systems, soft thin skins, fine silky hair, large badly-proportioned limbs, and large weak joints, and in those in which digestion is often impaired, excretion irregular, and circulation weak and easily accelerated. In an animal affected by scrofula the blood is in an abnormal condition. There is an alteration in the relative quantity and quality of its various constituents, consisting chiefly in a diminution of the red corpuscles, and an excess of fibrine, which is besides in a less elaborated state than usual; tubercular deposits are also found in various parts of the body. This alteration in the healthy quantity and quality of the albuminous ingredients of the blood, and in the integrity of the various tissues, is transmitted from the parent to the offspring; and, in proportion to the amount of deviation from the normal state, constitutes a scrofulous diathesis more or less decided. The diathesis is strikingly hereditary,\* often

\* Dr. Watson, in his admirable 'Lectures on the Principles and Practice of Physic,' thus speaks of the hereditary nature of this affection:—"In a former lecture," says he, "I mentioned scrofula as one of those distempers the hereditary tendency to which is indisputable. The scrofulous *diathesis* is hereditary: and sometimes scrofulous disease is so too. I have seen lungs, taken from the body of a fœtus, stuffed with tubercles. There were some fine examples of this



affecting many individuals of the same family, often traceable through many generations, and sometimes ascribable to the sire, sometimes to the dam. It is always, however, greatly aggravated (and may be developed *de novo*) by circumstances prejudicial to health—by insufficient food, by exposure to damp and to low temperatures, and, in a marked degree, by “breeding in-and-in.” By this system of breeding, any inherent tendency to disease, however slight, is greatly aggravated, and always in a rapidly accelerating ratio in each succeeding generation so long as the faulty system is continued.

The scrofulous diathesis affects various parts of the body, and assumes different forms in different animals, and at different ages in the same animal. It develops itself as rickets, hydrocephalus, tabes mesenterica, and pulmonary consumption, and in these, and all its other forms, is alike hereditary.

*Rickets*, like the other diseases indicative of a scrofulous habit, depends on malnutrition. The bones are defective in earthy constituents, and consequently give way under the weight which they ought to sustain, becoming bent and deformed. Amongst our patients, however, rickets is neither so common nor so serious as in the human subject, and the young animals affected by this complaint generally gain strength and vigour if they get a sufficiently nutritive diet, and are otherwise carefully tended.

*Hydrocephalus*, or water in the head, in one of its forms, is a tuberculous inflammation of the internal serous membranes of the brain. It is ushered in by languor, disordered digestion, irregularity of the bowels, and a falling off in condition. The limbs become weak and tottering; the head is hot and tender, and held in a dependent position; the eyes are impatient of light, and the pupils partially closed; there is more or less fever and an accelerated pulse. These symptoms, indicative of active inflammation, give way, after a

in Mr. Langstaff's museum, in the city. We have, therefore, in respect to scrofula, the rare conjunction of congenital disease, and hereditary disposition. . . . No one, of the least observation, can doubt that the disposition to consumption is very often transmitted from parent to child. We see whole families swept away by its ravages. Like other hereditary tendencies, it may skip over one or two generations, and reappear in the next, just as family likeness are known to do. There are other families in which you can trace no such predisposition; but such families are perhaps few. A little leaven is sufficient, sometimes, effectually to taint a whole pedigree. The tendency, however, exists in various degrees. It may be so strong that no care, no favorable combination of circumstances, will prevent its local manifestation; and it may be so faint that it would never break out into actual mischief if the exciting causes of scrofulous disease could be warded off.”—Lect. xii, vol. i, p. 203.



variable time, to others significant of effusion and pressure on the brain. All the external perceptions become blunted, and the pulse is slow. As the fluid accumulates, the head enlarges, and the bones become soft and thin. This state of depression usually continues until death. The disease is one of early life; it is rarely met with in animals of more than six months or a year old. As has been already remarked, it is sometimes congenital, and, in such cases, there is usually a great increase in the size of the head, from the amount of the effusion and the soft, yielding nature of the cranial bones. The substance of the brain is found, on examination, to be expanded by the contained fluid, and soft and infiltrated with a thin serosity. The membranes of the brain are much inflamed, coated with lymph, and studded with granules and tubercles, which are also found in other parts of the body, especially in the mesenteric glands, and are in all respects identical with those found in the lungs of consumptive patients. These facts establish the scrofulous nature of the disease, and its close connection with consumption.

*Tabes Mesenterica* is more common in foals than is generally supposed: it occurs at various ages, but seldom affects animals more than two years old. The matter of tubercle is deposited in the mesenteric glands; and this, interfering with their functions and preventing the due elaboration of the chyle, speedily causes derangement of digestion, imperfect assimilation, and consequently rapid wasting and death from inanition. Apparent recoveries occasionally take place, the tubercular matter becoming cheesy, hard, and gritty; but as the lungs also are usually diseased, recovery is often only temporary, and the animal by and by dies either of phthisis pulmonalis, or of glanders.

We have noticed that variety of consumption affecting the limbs, or rickets; that variety affecting the contents of the cranial cavity, or hydrocephalus; that variety affecting the abdominal cavity, or *tabes mesenterica*; and have now to notice that variety, perhaps, of all the most common and fatal, and which has its seat in the lungs; this is pulmonary consumption, or *phthisis pulmonalis*. It consists in a deposition of tubercular matter in the lungs; at first soft and cheesy, or gluey and fibrinous, and becoming, after a time, hard and gritty, but always unorganisable. Its symptoms are irritation of the mucous lining of the bronchia and lungs, as evidenced by cough; occasional febrile symptoms, wasting, and debility, which, in bad cases, sets in early, and is so excessive as speedily to destroy life. We have treated very

briefly of *tabes mesenterica* and of consumption in horses, because we shall have to return to them when speaking of the hereditary diseases of cattle, in which they are more common than in the horse.

These are the most common forms in which a scrofulous diathesis shows itself, but there are other irregular forms which it also sometimes assumes. In early life especially, we recognise it in intractable swellings of the joints, from unhealthy inflammation of their synovial fringes, and in accumulations of pus in various parts of the body. These two forms are often met with in different individuals of the same stock, and are always notoriously hereditary. I know at present of two entire horses, both of fine symmetry and apparently sound and vigorous health and constitution, that have for several seasons got stock, many of which have died within a short time after birth from these complaints, and others have long continued sick and ailing. A pony, in sound health, and which had previously reared a strong and vigorous foal, got by another sire, had a foal to one of these horses. From birth it was weak on its legs, and died before it was three weeks old: an immense accumulation of pus was found underneath the *psoas muscles*, and all the larger joints were inflamed, especially the stifle joints. In the succeeding year the same pony had another foal to the same horse, which again showed similar symptoms, and died about the same time after birth. Again, in the next year the pony was put to another horse, and had a foal which remained perfectly free from disease. This case, we think, distinctly proves the transmission by the sire of a scrofulous diathesis. The disease of the foals could not depend upon accidental circumstances, for a similar affection occurred in many of the stock got for several seasons by the same horse. The disease was in this instance ascribable to the sire, and not to the dam,—which is obvious from the fact, that the same mare produced and reared a healthy foal both before and after she had the two diseased ones. This last observation must not, however, be misconstrued, as leading to the belief that diseases are inherited from the male alone; on the contrary, form, disposition, and tendency to disease, all depend quite as often on the mother as on the sire.

But a scrofulous diathesis, besides appearing in the forms above noticed, also constitutes a powerful predisposition to many diseases. In scrofulous subjects sore shins often occur—a complaint common in many racing studs, appearing chiefly in young and rapidly-growing animals, depending on the excessive exertions to which they are

subjected in training, consisting of inflammation of the periosteum investing the cannon bones, especially of the hind limbs, and, when neglected, often running on to caries and necrosis.

From their weak and unsound constitution, horses of a scrofulous diathesis are unusually prone to *glanders and farcy*—two forms of a disease peculiar (at least as an original disease) to the equine species. As has been already remarked, it is characterised by a specific unhealthy inflammation, identical in all important characters with the syphilitic inflammation in man. From the dire and loathsome nature of glanders, and the terror in which it is held, animals affected by it are never used for breeding, so that we have little opportunity of judging of its hereditary nature. There is no evidence (so far as I know) which proves it to be directly hereditary,\* but there is no doubt that the progeny of a glanderous horse would exhibit an unusually strong tendency to the disease. Its ordinary predisposing causes are, many of them, hereditary: it is very prone to attack animals of a weak or vitiated constitution. It is emphatically *the* disease which cuts off all horses that have had their vital energies reduced below the healthy standard, either by inherent or acquired causes. Glanders is also sometimes caused by inoculation; is frequently produced in healthy subjects by mismanagement, as by insufficient food, want of shelter, and overwork; and often supervenes on bad attacks of influenza, strangles, diabetes, and other diseases which debilitate the system, or impair the integrity of any of its more important parts. These causes appear to possess the power of engendering in the constitution of the horse a peculiar poison, which, as it reproduces itself, and spreads to all parts of the body, gives rise to the characteristic symptoms of glanders, causing, sooner or later, a breaking up of the system, and a fatal prostration of the vital powers. This poison produces in the blood abnormal changes, which vitiate that fluid, and unfit it for healthy nutrition.† From the irritant action of the morbid fluids passing through them, the lymphatic glands and vessels become inflamed, and lymph is deposited. This, however, being of an unhealthy nature, soon runs on to softening, which extends to

\* Though I am not aware of any facts proving glanders to be congenital, yet I think there is every probability that such is the case; for it is notorious that syphilis, the analogous disease in the human subject, is congenital, and often appears at birth in the children of women affected by that disease.

† A comparison of the two subjoined analyses will show the great difference in composition between the blood of healthy and of glanderous horses—a differ-

the skin overlying the part, and ulcerating farcy-buds are formed. On the surface of the more vascular mucous membranes effusions of tubercular matter are also poured out; these take on an unhealthy inflammation, and degenerate into chancrous ulcers, which may generally be seen on the mucous membrane of the nostrils in most bad cases of glanders.

These are the most common scrofulous diseases of horses; but an animal of the scrofulous diathesis, besides being specially subject to these, is little able to withstand ordinary morbid causes, and hence is also unusually liable to many ordinary diseases; in such a subject, too, disease is very apt to be severe and complicated, and to be acted on tardily and imperfectly by all remedies.

## ON CONTAGION AND INFECTION IN RELATION TO EPIDEMIC DISEASE.

*In a Paper Read at the Epidemiological Society.*

Dr. M'WILLIAM endeavoured to illustrate the confusion and misunderstanding which at present existed on the subject of contagion and infection, arising from the arbitrary and uncertain signification attached to these words. The chief sources of error he traced to the transmutation of their meaning; that at one time they are employed to denote a cause, and at another an effect; that they are used to designate the agent or poison which causes a disease, and the contamination or effect of the poison. To obviate this source of error, he suggested, that as contagion was derived from *contagio*, which signified the act of contamination, and infection from *infectio*, the act of infecting; they should be limited to define the act or effect. That as the word *contagium* is synonymous with miasma or poison—viz., that which

ence consisting chiefly in a diminution of the red corpuscles, and a proportional increase of the fibrine and albumen:—

<i>Blood of Healthy Horse.</i>		<i>Blood of Glanderous Horse.</i>	
		A.	B.
Water . . .	804.75	842.	859.
Fibrine , . .	2.41	6.60	8.7
Blood corpuscles .	117.13	68.20	44.20
Fat . . .	1.13	76.70	82.27
Albumen . . .	67.85		
Soluble salts . .	6.82	6.50	5.38

*Simon's Animal Chemistry*, by Dr. Day, vol. i, pp. 346-7



contaminates or pollutes, the word *contagium* might be Anglicised as effluvium has been. The contaminating agents of disease would be spoken of in the following manner,—as *contagium variolæ*, *contagium scarlatinæ*, *contagium rubeolæ*, &c., and where required plurally, *contagia* as effluvia. Wherever the agents of communicable diseases have been demonstrated, they have uniformly been shown to depend upon some form of cell-life. Diseases are communicable in three modes:—First, by inoculation; secondly, by deposit on the integumentary or mucous surface; and, thirdly, by ingestion either to the stomach or lungs. The analogous modes of vegetable propagation are grafting or budding, sowing the seed, and accidental diffusion. For the manifestation of a wide-spread epidemic three things are necessary:—First, the presence of a special poison; second, an adaptation of the community for the reception and specific action of the poison; and, third, favouring atmospheric and telluric conditions. He referred to the fact, that all pestilential diseases were communicable, and objected to the prevalence of qualifying expressions, such as “contingently contagious,” &c. If a disease ever merits the term contagious or infectious, the property of the disease under all circumstances remains the same; the contingencies have regard to the manifestation of the properties of infectious agents, but not to the diseases engendered by those agents. Smallpox is still a contagious disease, though it does not now appear among us as an epidemic of fatal virulence, and very commonly dies out in places where it occurs without spreading among the population. The disease is the same, but the conditions which favoured the development of the poison have been changed. He condemned also the too free use of the terms epidemic foci, influence, and force, as calculated to divert the mind from the all-important inquiry—the nature and properties of the morbid poisons; for all the advantages which had accrued to mankind from the study of infectious diseases were traceable to the knowledge acquired of the agents of disease in their operation on the body. Allusion was made to the uncertainty which surrounded the subject of the diffusion of disease, and instances given to show that contagion and infection were not uniform actions. Ambiguous cases, which seemed to indicate a generation *de novo* of the specific poison, are explicable on other and more rational principles. He suggested that a wider view should be taken of contagion and infection, and quoted from the Reports of the Board of Health, from which it appeared that limited notions on this subject led necessarily to the

distortion of facts, and consequently to unsound conclusions. As regards quarantine, correct views on the dissemination of disease, whether by contagion or infection, must be at the basis of sound legislation. Obsolete notions, and laws founded thereon, should be no impediment to wise precautions for the future, and more mischief might possibly arise from unrestricted intercourse of the sick and infected with the healthy and intact, than could ever be repaired by all the savings arising out of commercial convenience. It was possible, by a comprehensive and unbiassed conception of the whole subject, that a maximum of security might be attained with a minimum of inconvenience. In the social position of medical men, uniformity of opinion on this question was much to be desired,—divisions led to merited opprobria. He concluded by referring to an observation made by Lord Campbell in the House of Lords, to the effect, that, if the question as to what were infectious diseases came before the judges, “he suspected that seven of them might be found on one side, and eight on the other.” This fact alone was indicative of a work to be done—an end to be accomplished.

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#### UNQUALIFIED MEDICAL PRACTITIONERS.

IN England, it is a misdemeanour to personate a clergyman, a solicitor, a soldier, a policeman, or to appear in the garb of one of the opposite sex. The divine, the lawyer, the military, and the police, are all protected against the assumptions of the quack and the pretender. Yet, strange to say, in the matter of health and disease, of life or death, the greatest laxity and indifference prevail. The man who rejoices in no one qualification but impudence, and in no possessions save his quack handbills, may plaster every corner of London with indecent announcements; while any irreclaimable vagabond of the London streets may vend his confectioneries, his pills, powders, or ointments; any woman who has once been a mother, or once attended at a birth, may forthwith establish herself as a midwife; and the young stripling behind a druggist's counter, who has just got over the timidity caused by the hieroglyphics on his master's show-bottles, may advise the mother, and compound a draught for her sickly infant, which, however pernicious, so long as death does not immediately result, the law is satisfied, the Legislature supine. Passing over the injustice of such laxity as affecting qualified medical men, who are confounded

by the public with these hordes of disreputable adventurers, we would put the whole question on a much broader ground,—that of the welfare of the public ; and, at the present time, when the subject of Medical Reform is before Parliament, we feel it to be especially necessary to call attention to this phase of our social economics.

The “Occupation Returns” of the Census for 1851 are not yet issued ; and hence, for the present, we must adopt such data as we have in endeavouring to estimate the amount of unqualified practice of medicine which prevails in Great Britain. For this purpose, we take the Census of 1841, tabulating the persons there returned as practising in the various departments of medicine and surgery, and comparing those with the number of qualified medical men returned in the “London and Provincial” and “Scottish” Medical Directories for 1851. This plan, we are aware, gives an overwhelming advantage on the side of the quack, since it ignores the increase which must have accrued to this class under each head in the ten years, 1841-51 ; but, even on this showing, the results will be instructive, and we hope may be of some service in directing public attention to a most fruitful source of evil as it respects the public health.

The results, then, would appear to be as follow:—In Great Britain, in 1841, there were 21,531 persons practising one or more departments of medicine without qualification, the numbers of the Census being 33,339, and of the Directories 11,808. In England, according to the Census, there was thus a practitioner to every 543 of the population ; in Wales, 1 in 822 ; in London, 1 to every 272 ; in Scotland, 1 in 593 ; and in the British Isles, 1 in 510 ; while, taking the numbers in the Medical Directory, the proportion of qualified men to population was, in England, 1 in 1527 ; in Wales, 1 in 2893 ; in London, 1 in 714 ; in Scotland, 1 in 1614 ; and in the British Isles, 1 in 2215.

It will be observed, that we have included in the above, “Chemists and Druggists ;” and there is sufficient reason for so doing. It appears that, deducting the chemists and druggists from the grand total, would leave 22,495 persons practising medicine according to the Census, or 10,687 more than appear in the Medical Directories. Thus there is 1 chemist and druggist in Great Britain to every 2 medical practitioners. This warrants the assumption, that “chemists and druggists” are themselves practitioners to a great extent. Indeed, the experience at assizes and before coroners’ juries, where detection and conviction are the exceptions, sufficiently attests the fact. We therefore include them in the gross

total. "Keepers of Lunatic Asylums" have been omitted in our category, though a large number of them would legitimately appear there. It is worthy of observation, however, that under this head, 216 of them are females, and many of these under 20 years of age.

In Birmingham, there was one "herbalist" under 20 years of age; 2 "keepers of lunatic asylums" under 20; 14 female leech-bleeders; and 1 *female* physician. 1 female "dentist" in Taunton; a "*physician*" in Norwich under 20; 2 "medicine-vendors" in the Tower Hamlets under 20; 1 "midwife" in Preston under 20; 1 "physician" in Canterbury under 20; 2 "physicians" in Bristol under 20; a female "chemist and druggist" in Colchester under 20; 1 physician in Darlington under 20: and 1 *female* "surgeon" in Cornwall under 20.

After this, we must cease to wonder at the details of suffering in our Profession continually brought out in the Reports of our Medical Benevolent Fund and other Medical Charities, at the awful sacrifice of infantile life in our large towns, at the disgraceful exposures in our criminal courts, and at the melancholy results of unqualified practice, daily occurring before our Coroners.

We trust that, as a first step in Medical Reform, the Legislature will adopt a most rigid system of protection for licensed and qualified practitioners against unprincipled pretenders; and will not only preserve the public from Coffinites, Morisonians, Herbalists, and "Silent Friends," but will give the necessary powers, either to some central licensing Board, or to certain Colleges or Universities, to prosecute and punish those who assume titles and distinctions to which they have no legal claim.—*Medical Times and Gazette*.

## GENERAL BLOODLETTING.

By W. CUMMING, Esq M.R.C.S., &c.

It is now a long time in the history of medicine since bleeding was the remedy that was used for almost every complaint. If a man was ill, he was bled; if he wished to ward off illness, he was bled. There was no discrimination between diseases; they were all supposed to be inflammatory, and treated as such. At the same time that bloodletting was employed so universally, it was carried in each case to the most preposterous extent, as if the object in view was to try how much blood could possibly be got out of the patient. The increased knowledge of diseases, showing that many are not inflam-



matory, but dependent on want of blood and strength, the recognised power of calomel and antimony to control inflammation, and other causes, have removed this error in practice, but seem likely to lead us to an absurdly opposite extreme. Unfortunately, it is too true that even well-educated members of our profession are too apt to neglect or misuse a good remedy from the powerful influence of mere fashion. No sooner was cod-liver oil asserted to have some power in checking or soothing phthisis than it was crammed down the throats of a vast proportion of patients as eagerly as if the elixir vitæ had at last been really discovered. At the present time there seems to be a prevailing prejudice against general bloodletting among practitioners of medicine; forsooth, because their are epidemics which are characterised by marked debility, and because many slight inflammations will get well without it, (and indeed without any treatment at all,) they relinquish a most valuable means of controlling disease,—one which, used within proper limits with care and discretion may prove of the highest service. Severe acute inflammations of internal organs, especially of the parenchyma, and serous coverings, are the cases in which bleeding is chiefly needed. There are, of course, many exceptions; many causes may render bloodletting inapplicable: a constitution broken down by drinking, starvation, or excessive exercise of body or mind,—the powers of the system reduced by the continuance of the disease, the case in its own nature being authentic,—all these may render bleeding unnecessary or hurtful, but do not interfere with the general rule, that an acute inflammation in a good subject requires active depletion at the outset. By its adoption life will probably be saved, or serious irreparable damage avoided. It is after the activity of the disease and the force of the general circulation and tone of the system have been reduced by bleeding, that other remedies, as antimony and calomel, are so useful in rendering its repetition unnecessary, and completing the restoration of the affected part to its natural state.

There are one or two points in the diagnosis of inflammation of great importance. If I take up an ordinary treatise on medicine, I find that an acute inflammation is distinguished by the presence of acute fever accompanying the pain, and other local signs; a pleurisy, for instance, is distinguished from pleurodynia by the presence of fever in the former. Now, it frequently happens that a patient is seen in private practice at the very onset of the attack, when the pain is very severe, but there is no fever at all. It is extremely necessary to bear this in mind in respect to the

diagnosis of the case, and also because this is the very moment for the most successful and prompt treatment. I am summoned to a patient with a severe pain in the side; he cannot breathe without great pain, but there is no accompanying fever, the attack having come on, perhaps, within an hour or so; but in the course of a day or two, or sometimes much less time, all the constitutional symptoms will have sprung up. There are other cases in which the fever is developed at the onset. It is very needful to bear in mind the former class of cases,—to remember that there may be all the local signs of inflammation without the general, if the attack has just come on.—*Lancet*.

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### ON MUSCULAR ACTION.

MR. SKEY enters into some interesting calculations, and details, in the course of his lectures delivered at the College of Surgeons, various experiments to prove that the muscles exert a “controlling power,” which is thus explained:

“It will be admitted by all authorities, that the contractile power of muscular fibre is far greater than the ordinary and daily duties of the individual muscles appear to require, although it may be difficult to gauge this power with precision. Reverting to the biceps, I think we may reasonably infer, that the power exercised by Nature in raising any given weight may be less than that employed by art, but cannot be greater. It is highly improbable that the forces resorted to in the experiment with the pulley, are employed to the best advantage, or that they can exactly represent the muscles themselves. We may infer, therefore, that the two muscles—the biceps and brachialis anticus—in supporting a weight of 56lbs. in the hand, act with a force of from 5 to 6 cwt., and that their action, when exerted on the unweighed hand, is equal to 20lbs. only. This is a large range of action, and demands, on all occasions in which these muscles are called into play, an exact adaptation of the requisite force, neither more nor less. But muscles, under disease, are liable to false applications of their power. These actions may become sudden, uncontrolled, and violent, as in the case of the fractured patella, or the ruptured tendo-Achillis. Let us suppose the larger power of the biceps to be applied, by the accident or spasm, or other deviation from health, to the lesser purpose,—what would be the result? Surely, fractured bone or lacerated tendon or muscle; for the bony organisation of the forearm is hardly competent to contend against a

force of a quarter of a ton suddenly brought to bear upon it. In order to remove this liability, Nature has placed all such muscles under the influence of a controlling and regulating power, which we shall find in the antagonist muscle. I have always had faith in such a power; indeed, I have always taught it; but I have not till comparatively recently analysed it in detail. I think there can be no doubt of the existence of this power—a power which is called into action as the antagonist of every muscle in the body, which, like the biceps, possesses a large range of action, that will act with a force of 20 lbs., or a quarter of a ton. It is only such muscles that either acquire or possess antagonism. If the primary and sole function of a muscle be invariably large, it cannot act injuriously; and such muscles we find to be deprived of antagonistic power.”—*Medical Times*.

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#### ANOTHER DEATH FROM GLANDERS.

ON Thursday night last, Mr. Bernard Donnelly, a horse-shoer, who resided in Dawson-street in this city, died in great agony of glanders, contracted from a horse affected with that terrible loathsome and contagious disease. Mr. Donnelly was a remarkably well conducted and industrious man, and, being also a very superior horse-shoer, had excellent employment at his trade. He had the fatal misfortune of taking under his treatment a horse in the neighbourhood, that was affected with glanders and farcy, and no doubt, with unskilfulness in veterinary operations, had used his fleam to extract blood, a small quantity of which had got into his system through a sore on the lip. On the day following that of the operation the affected part was much swollen, and, notwithstanding all the efforts of superior medical skill, he died before the lapse of eight days. It is a mark of ignorance or inhumanity to employ blacksmiths to treat diseases of horses, which require all the science and talent of the regularly educated veterinary surgeon. As the age of barber-surgeons has passed by, so should that of veterinary blacksmiths. We sincerely regret poor Donnelly's death, which was one of excruciating agony; and we trust that the frequent fatal cases of a similar character which have lately occurred in Ireland, and even in this county alone, may induce the government to employ a regular veterinary surgeon, whose office, among other matters, it would be to inspect horses in fairs, and prevent fraudulent and heartless traffickers and dealers from selling to ignorant persons animals affected with so loathsome and fearful a distemper.

## THE VETERINARIAN, NOVEMBER 1, 1853.

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*Ne quid falsi dicere audeat, ne quid veri non audeat.*—CICERO.

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A subject of keener interest to the philosopher, the breeder, or the Veterinarian, could hardly, perhaps, have been selected than the one—"On the Hereditary Diseases of Horses"—Mr. Dun has, at the instigation of the Royal Agricultural Society, recently employed his pen on, and thereby succeeded in obtaining a prize from that body; who have now, as their 'Prize Essay,' published it in their Journal, out of which we have taken the liberty, in our last three numbers, to translate it, intact, into our own pages. We must remember, that on two previous occasions, under circumstances very similar and equally creditable to him, has Mr. Dun presented himself to the notice of the Agricultural and Veterinary worlds; he having three years ago obtained from the Highland and Agricultural Society of Scotland, their gold medal, as a premium for his paper "On the prevailing Epizootic in Cattle, called Pleuro-pneumonia;" and subsequently, another premium of Ten Sovereigns for a paper "on Murrain, or the Vesicular Epizootic;" on both of which latter occasions, we felt it our gratifying duty to compliment Mr. Dun on the industry and ability displayed in his 'Essays.' Nor do we feel we are bound to do less on the present occasion, since, in the paper we this month print the third and concluding portion of, Mr. Dun has manifestly pursued his present task in the same sanguine and persevering spirit of research, with a display of ability, theoretical as well as practical, which we entertain no doubt will call down upon him no less the admiration of his professional brethren than, as it already has done, that of the agricultural body for whom it was originally and especially written.

Mr. Dun considers the subject of his 'Essay' under three headings:

1.—General hereditary characters, both healthy and diseased.



2.—The hereditary diseases of Horses.

3.—The hereditary diseases of Cattle.

That properties, characters, and qualities, physical, mental and moral, are transmitted from parent to progeny, the society of every-day life furnishes us with the most familiar and striking examples of: the offspring furnishing *un autre soi-même* of the parent, not in size and form and feature alone, but in disposition and temperament, and capabilities of mind, as well; though all these inherent or inherited qualifications are apt to evince more or less modification, or even deviation or alteration, in the issue from the parent stock; while all admit of development and amelioration by training and education; and none, in this respect, are apt to evince their improvement more conspicuously than those of the mind. The culture of the mind, however, blazes out most markedly in the difference between civilised and savage life; the latter being, in the lowest condition of it, little raised above brute nature itself, save that it has moulded up in its nature properties which, by cultivation, are capable of high polish, of an eminence of progression to which brute kind is by no sort of culture capable of reaching. Why should not diseases, the same as physical structure and mental functions, be alike susceptible of transmission down from parent to offspring?

Do we not see in animals, as in men, size, form, temper, and habit inherited? Are not particular breeds of particular colour?—to wit, the Lincolnshire Cart-horse, which is black; the Cleveland bay; the Arabian, or thorough-bred, bay or chesnut, seldom grey, and still more rarely black? In animals, as in men, the breed will undergo modification and improvement, or deterioration, according to keep and rearing, &c.; but in any alteration it may sustain, the inbred qualities of inheritance will still, more or less, peep out in some special shape or other. In cattle, too, how apparent and remarkable inheritance is? It is that which maintains the distinctness of the breeds; though manifold crosses and re-crosses are such as to operate more or less in subduing or destroying certain family resemblances, as well as in substituting alterations or modifications for them, and to such an extent as to require,

on our part, so much the more discriminative judgment in detecting the genuine or original type, or essential character of the breed.

In regard to the hereditary transmission of disease, granting the fact as demonstrable beyond question, in the animal as well as in the human race, Mr. Dun shows that such transmission operates under certain defined influences, amounting, so far as they have been traced, to the following recognised laws:

“ 1. They (hereditary diseases) are transmitted by the male as well as by the female parent, and are doubly severe in the offspring of parents, both of which have been affected by them.

2. They develop themselves, not only in the *immediate* progeny of animals affected by them, but also in many *subsequent* generations.

3. They do not, however, always appear in each generation exactly in the same form. One disease is sometimes substituted for another analogous to it, and this, after some generations, becomes again changed into that to which the breed was originally liable. Thus, stocks of cattle previously subject to phthisis, often become affected for several generations with dysentery, to the total exclusion of phthisis; but, by and by, the dysentery disappears to give place to the phthisis.

4. Hereditary diseases occur to a certain extent, independently of external circumstances, appearing under all sorts of management, and being little affected by changes of locality, separation from the diseased stock, or such other causes as modify the production of non-hereditary diseases.

5. They are, however, more speedily and certainly developed in circumstances inimical to general good health, and often occur at certain so-called critical periods of life, when unusual demands on the vital powers take place.

6. They show a striking tendency to modify and absorb into themselves all extraneous diseases. For example, in an animal of a consumptive constitution, pneumonia seldom

runs its ordinary course, and when arrested, often passes into consumption.

7. Hereditary diseases are less effectually treated by ordinary remedies than other diseases. Thus, although an attack of phthisis, rheumatism, or constitutional ophthalmia, may be subdued, and the patient put out of *pain* and *danger*, the tendency to the disease will still remain, and be greatly aggravated by each attack.

8. Hereditary diseases do not necessarily show themselves at birth. In horses and cattle there are only a few which do so."

The foregoing recognised results of experience make us acquainted with certain modes of action or operation observed by nature in the construction and working of that wonderful organism—an animal body. Certain data yield certain products, modified by a variety of circumstances of which we record many for the most part extrinsic; but how or in what manner such natural operations are physiologically accomplished, though we may on occasions elicit how it happens that they become modified or altered, must probably for ever remain what, to our finite understandings, is—a mystery. Nature's grand and leading principle of action, as manifested in her wonderful works in these matters is, that *like issues out of like*. You cannot gather figs from thistles, no more than you can expect a horse to produce a cow, or a man anything but a human being; but how the specific organisation itself is varied, or how it specifically acts in each generic class to reproduce its kind, and nothing but its kind, is, it appears, more than we shall ever approach any knowledge of nearer than the possession of a few scattered facts, which, after all, lead us but a short way into the labyrinth of Nature's impenetrable secrets.

Touching the hereditary transmission of disease, Mr. Dun views it as "the same as the superinduction of spavin or curb in hocks of certain construction, also depending upon *the altered conformation or texture of the parts* specifically affected, or upon some *disturbance of the relation* which should subsist between the different constituents of these parts;" or, we would

add, its relation to other vicinuous or correlative structures ; “the ground of our reasoning resting chiefly on the analogy which subsists in all respects between external and internal parts. Our conclusion is, therefore, that *every hereditary disease depends upon some hereditary abnormal condition* predisposing to that disease,” on the principle that “like produces like.”

Proceeding to the consideration of “*The hereditary diseases of HORSES*,” as divided from those of cattle, Mr. Dun enumerates, first, those of a “local nature,” bone-spavin, curb, navicularthrititis ; and, secondly, “those which are more general in their character, and which affect the system as a whole,” viz., chronic cough, roaring, ophthalmia periodica, and blindness.

In regard to *local* hereditary diseases, Mr. Dun makes the observation that they are “usually simple in their nature, and consequently their predisposing causes are easily traced, and usually consist in some peculiarity of external form more or less obvious. This observation chiefly applies to several sorts of lameness,” &c. Thus, with the principle on which he set out, he traces hereditary bone-spavin to the “width and strength of the limb *below* the hock being disproportioned to its width and strength *above* it.” Admitting that bony deposits are more apt to affect some families than others—in fine, such a thing as an osseous or bone-forming *diathesis* seeming to be implanted in the system by Nature with the intention of strengthening “local weaknesses,” and manifested from very slight causes ; we say, with this notion of *local* hereditary disease, Mr. Dun observes, in respect to the disease deranging the constitution, that “it cannot be doubted that there exists in them (it) some peculiarity of conformation or of minute texture differing from health, and which, although generally unobservable, is yet capable, under favouring circumstances, of fostering serious and irremediable disease.” We may, at another time, resume the consideration of this interesting subject.

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PROLAPSUS ANI.

PROLAPSUS ANI, *proctocoele, inversio recti*, (or, as the French denominate it, *renversement du rectum*,) are so many appellations for a disease which, if one may judge from the paucity of cases on record, comes but occasionally under the notice of the veterinary surgeon—even in horses, though oftener among them, it is said, than in other animals; still, it is a disease which it behoves him both to understand the nature of, and be prepared with remedies to remove, whenever it does happen.

DEFINITION.—It consists in inversion and prolapse of the mucous coat of the rectum; either confined to the mucous membrane itself, or, otherwise, involving more or less of the entire substance of the intestine along with it.

THE ASPECT of the protrusion will mainly depend on the nature and volume of the parts ejected, and upon the time such evolution has been in existence. When recent, so readily does tumefaction of the parts follow their protrusion, that this speedily opposes all attempts at return, should the animal make any; though, in truth, his efforts in general have the effect of straining more gut out, and, through his straining, in some cases, lacerating the membrane, and thus augmenting, instead of diminishing, the evolution as well. In this manner arises a large, sometimes enormous, rotund, red, rugose efflorescence, consisting of cylinders of mucous membrane, having an aperture closed through constriction in its centre, though, when open, issuing a mucous and sanious matter, especially at such time as the animal is straining afresh. The circumflex action of the sphincter ani around the neck of the swelling, together with its distension with gas, and the action of the air upon its surface, all add to its increase of volume and change of colour; while the straining at the same time increases the difficulty of any effort the practitioner may make towards effecting a return of the protruded gut. With its augmentation of volume comes a deepening redness, turning, through the constriction of the

sphincter, to a darker and even purple hue; the membrane becoming, at the same time, inflated and œdematous; and gradually changing its colour from red to yellow and to brown, though still having a humid shining aspect, from now becoming glairy from albuminous secretion, which is not only mucous but at times purulent.

CAUSES.—These may be summed up in *irritation*, either direct or sympathetic, of the mucous membrane lining the anus and rectum. It is possible that prolonged constipation, from giving rise to violent straining efforts at expulsion of dry and hardened fæces, might bring it on; or even the strains of parturition. The action produced by excessive purgation may cause it; but more especially irritation of a mechanical kind, arising from direct injury to the membrane or rectum during the operation of raking or manual exploration of the gut, or of clystering. It may prove an accompaniment of an enteritic, colicky or diarrhœal condition of bowel. It is possible it may ensue on nicking; though I never knew it to follow that operation. Violent struggles of any kind, as in such a case as is mentioned in *The Veterinarian* (vol. XXV), by Mr. J. Brown, V.S., London; wherein the horse “had forced out nearly a foot of the rectum in struggling violently to release himself,” while being cast.

TREATMENT.—The formidable, and indeed awful aspect of this disease, is apt to operate in the mind of the owner of the animal favorably for the veterinary surgeon, inasmuch as it gives rise to his being called to the case sooner than he otherwise would have been. Should the summons be an early one, at the time that the protrusion is recent and its volume nothing so very alarming, judicious exercise of the taxis, if employed at the moment, may succeed in the return of the gut. Distributing the fingers of both hands over the rugose and turgid body of the protrusion, steady, firm, and forcible pressure ought to be maintained against it for such length of time as appears to afford any chance of success, augmenting the force used whenever there be any remission of the straining. Should the first efforts of this description fail, the protruded mass may have its bulk lessened and constricted as much as possible by local application of some sort, than which none offers a better chance of succeeding than such as follows from sudden and intense cold, though to a part so sensitive and vascular, the practice is not devoid of danger. Ice may be powdered and inclosed in a linen bag, so as to form a sort of bolster that may be held or braced with firmness upon the tumefaction. The contrary of such treatment as this, however, though the object be the same, is generally preferred; viz.

fomentation, medicated or not, with scarification of the exposed membrane; though in other cases, astringent applications are employed, with a view of causing contraction and diminution of the mass, such as lime water, decoction of oak bark, solution of alum, &c.; and while such proceedings are going on, it is advisable to have the hind parts raised. Supposing we succeed in accomplishing the reduction, the chances are in favour of a relapse of the *prolapsus*, and these chances seem great in proportion to the facility with which the return of the inverted gut has been effected: indeed, so constant and troublesome does the return in some of these cases become, that it is necessary to contrive some sort of truss to oppose the descent, the same as is done for rupture in man. Mr. Dycer's truss consisted of "a new wet chamois leather, a breast-plate, and a hip (human) truss." Should constipation be thought to operate against reduction, in addition to clysters, we may exhibit cathartics and aloes in solution, and should there be plethora and great irritability in the membrane of the rectum and anus, a bloodletting will be advisable; while an opiate or belladonna clyster will be advantageously administered in order to allay all local irritation as much as possible.

AS A DERNIER AND EFFECTIVE MODE OF PROCEDURE in prolapsus ani, when the case proves either irreducible or, after return, continually protrudes, on any slight effort, such as coughing, afresh, we have recourse with safety and certainty to an operation consisting in excision of more or less of the inverted membrane enveloping the protruding portion of gut. This is an operation of ancient date, though to Dupuytren is ascribed the credit of introducing it into human practice, and to the French veterinarians that of transplanting the same into veterinary practice. Formerly, the actual cautery was the instrument employed for the removal of the parts obstructing reduction; but in our own day this has been thrown aside for the scalpel, an instrument quite as effective, while the simple act of cutting with a knife gives so much less pain than cutting or dividing with the actual cautery. In general, it is considered necessary to cast the horse for the operation; but Mr. Gregory, V. S., Bideford, did not cast his patient, but "merely put on a side-line, and had one leg held up, and the tail kept on one side;" and most assuredly the standing position of the patient is one which, in such an operation, offers no mean advantages to the operator, providing he can avail himself of it without any personal danger. A great preservation against refractoriness in an operation of the kind, at the moment when any pain is felt, is a twitch

well put on, and well and *timely* turned. The horse secured, with his tail turned aside out of the way, an incision, forming a circle, is to be carried round the protruding mass, at sufficient distance from the constricted part or *neck* of the protrusion to leave behind it such parts as are distended from tumefaction or infiltration, whose removal will render the retraction of the gut an easy and natural effort. In making incision, it may be advisable to take up, and tie with a silk ligature, any vessel met with of size enough (as some of the rectal arterial branches are) to issue a current of blood; though sometimes no such precaution is required. In the case mentioned of Mr. Gregory (to be found in *The Veterinarian*, vol. XXVI, p. 556), "not more than a quart of blood" was lost. The incision ought to be made of sufficient depth to penetrate completely through the substance of the mucous membrane, however morbidly thickened that may be, without, however, running a risk of wounding the muscular coat beneath it; the object being, to dissect the former away and strip it off the latter, so as to lessen the bulk of the mass to that degree that return becomes a voluntary and facile action of the animal himself. As soon, however, as this denudation has been carried near to the inverted anus, care must be taken not to dissect, or anywise injure, the sphincter of that part, lest we leave the horse with any imperfection in closing an outlet of so important a function. A soft or mash diet should for a few weeks succeed the operation; with abstinence from hay, which from its fibrous prickly nature must be particularly offensive to the denuded gut. Occasional emollient clysters are also recommendable, especially when there appears any pain or difficulty in giving exit to the fæces.

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## REPLIES TO QUESTIONS

*Put by the Military Committee of Finance, Fort William; 7th August, 1829.*

By J. T. HODGSON, V.S.

QUEST. 1.—*Are Stables required for Cavalry Troops in India?*  
 Stables for cavalry in India are of two kinds, pillars supporting a thatched roof, and arches with syrian roofs of substantial bricks and mortar. The former is the same as the latter in the ground plan: the horses being stallions, the stalls are as large as an English loose-box. Both have a pathway down the range, for officers to inspect the horses on



either side. The first is the cheapest mode of construction, but is liable to casualties, as stated in Question No. 7, (as well as badly-constructed barracks for soldiers;\*) the prevention in both cases is the better mode of building; but it is attended with great outlay, and political considerations might render cantonments in other parts of the country much more desirable.

The committee of Finance (the members of which were very able staff officers belonging to each of the Presidencies), seeing that both regular and irregular cavalry in some parts of India did not use stables, particularly the officer from Madras, who had been used to the exposure system, thought of addressing these questions to cavalry officers commanding regiments, and to veterinary surgeons. I can only give my own replies; but all the officers with whom I conversed on this subject were for stables. Officers at head-quarters in the enjoyment of curry, rice, and claret, with a good house over their heads, might say—

“ Fear no more the heat of the sun,  
Nor the tempest’s rages,  
Thou, thy daily task hath done,  
And taken thy wages.”

Also forget, perhaps, they had ever been subaltern officers in a tent, sitting under the table, to prevent the effects of the sun on the contents of their craniums, the thermometer being from 120° to 140°, or wrapped in cotton quilted dressing gown; their servants shivering with cold in the verandah of it, perhaps sick; looking out upon their only pony, braving the pelting of the pitiless storm, up to his knees in water, more like a half-drowned cat than one of the equine genus; their cook fireless, without chance of getting the tough grey partridge grilled, that master had shot for his dinner: “good entertainment for man and horse” not being visible there. It is presumed the evidence was in favour of stables in the north-western part of India, whatever it might have been on the Peninsula. I regret I cannot inform you what has happened since 1835, but when I read that Mr. Hurford has castrated 285 horses, even in 12 years, a change of opinion of this stable question may also have happened; for in my time officers on our side of India were as averse to castration as they were to the exposure system. Some other veterinary surgeon may be able to inform you upon these points, and there are now many who have had equal experience in India with myself.

\* A serious casualty happened to a regiment of Her Majesty some time ago at Loodiana.

Stables were built at Hissar for the Experimental Dromedary Corps in 1817. After the Pinsurrie war, the corps was not kept up; their stables have been subsequently used for remount colts.

Stables were also allowed for gun bullocks at some stations. The same reasoning would equally apply to these animals if you wished to keep them in high condition; but this shows you to what extremes opinion will go, when it becomes a finance question. Stables for no animal. We had sheds for the cattle at the large cow farm at Hissar, but the camels for breeding were out grazing in the province, without cover, and such a thing is not thought of by the natives for camels, even when hard-worked by the commercial carriers of the country.

A caravanserie in the east affords only cover, and scarcely that, for man. There is not a finer climate and country in the world than the upper or north-western provinces of India, during the cold season; but when I tell you it freezes at night, and is hot during the day, you will allow that animals exposed should be well clothed and fed, if their condition is to be kept up. Dealers' horses are at this season well covered with warm clothing, highly fed, and have cordials. Their practice is contrary to the exposure system, because they take every means in their power to counteract the effects of cold. I recollect one Christmas at Hissar, when it rained, all the dealers' horses for the remount had cough, and some catarrh, and could not be shown to a committee for some days, till the warmth of the weather furnished clothing for them to recover.

You would be surprised to see the quantity of felt, woollen, or cotton-wadded clothing, used by Cabul horse-merchants on their horses. Even the lowest horse-merchant from Bombay, when in the upper provinces, takes good care to keep his Arabs warm.

The late Professor Coleman said the horse never had fever, that is the cold fit, succeeded by the shivering, and then the hot and sweating fit. I have stripped an Arab racer in a tent at Meccul; the cold and shivering fit has happened immediately, and which, (if the horse had not been taken to the post,) would have been succeeded by the hot fit, and the skin would have become moist.

I have written these few remarks in support of my opinion. Animals of every description, if you wish to keep them in health, require care and protection in all climates, and I have observed them in the extremes of heat and cold. It is most economical, and, if numerically considered, most advantageous.

Horses, then, may be kept in stables, provided always that they have been under proper management.

2. My opinion is grounded on experience of about five years with the horse artillery, as a student in England, during General Sir John Moore's campaign, doing duty with the body guard two years at Calcutta, and with the horse artillery here three years, besides five years at the Hissar remount dépôt; besides occasional observation of regular and irregular cavalry both in Europe and this country for eighteen years. I refer to facts during Sir J. Moore's campaign; but without the collateral circumstances, the bare facts would not support my opinion: no conclusion could be come to in favour of or against either system, as I shall hereafter endeavour to show.

3. This depends much on management; but as far as I at present know, glanders and farcy, unless arising from contagion, are produced only in stables and other close places, as on shipboard, but this would not apply to the open cavalry stables of India, if kept clean; though this is difficult from want of draining and use of (mootalees) urinals.

Kennuree, or weakness of the loins from fever, (inflammation of the brain,) I believe, would be oftener produced by exposure, as well as abrasions of the skin, which take on a peculiar action from climate, called bursantée ulcer, also cankered feet. Horses are more liable to endemical diseases, if exposed, but less liable to inflammatory complaints and coughs, in India cavalry stables, (not in others,) as the cause of these complaints is variations of temperature, to which horses are most exposed at picket in the open air. Sore backs oftener happen at picket from saddles not fitting, after horses have lost flesh, partly from exposure, or from the sircingle injured by rain and sun.

4. No. When there is not a current of air, and the stables are dirty, glanders and farcy are the consequences.

5. It is not the practice to keep horses in stables at this time.

6. I do not recollect the casualties, but the impression left on my mind regarding the same horses that had been on shipboard, at picket from Mondego Bay to Lisbon, in stables at Lisbon, again at picket with General Hope's division (park of artillery) from Lisbon, through Portugal and Spain, before and during the retreat, is as stated in paragraph 9.

7. These might be, but there are means of prevention.

8. Sooner with stables.

9. No; and it is not because they get accustomed to ex-

posure, but *condition* and *management*, which enables horses to withstand the variations of temperature that is the cause of coughs, &c.; therefore instances, particularly facts of casualties, should be received with caution, whether horses be taken from stables or previously picketed in the open air. I recollect instances of the same horses that had been at picket bearing much better exposure to worse weather, in the fatigues of General Sir J. Moore's retreat, than they did in better weather, when disembarked, after having been four months on board of ship; but in this case they were out of condition, (though in good order as to flesh,) from want of exercise, in the other they were in condition from previous marches through Portugal and Spain.

10. No.

11. The contrivance would prevent in degree, what, I consider, of little importance, being only an occasional occurrence.

12. With stables.

13. I do not know about states, but natives, (*vide* paragraph 15.)

14. This depends on the nature of the disease; for instance, if horses had the mange, and the predisposing cause, being out of condition, sooner under stables; but for farcy, better in the open air, and as far as regards the prevention of glanders. For recovery during inflammatory stages of diseases, stables are necessary.

15. The statements required would not lead to any direct conclusions as to the best treatment of cavalry horses in this country, which should be founded on principle, and the practice varied thereon, according to local circumstances. The subject embraces more than could be thus elicited. I am, therefore, under the necessity of supporting my opinion by further observations.

That horses are preserved in health in the open air is generally true; and that comparative condition, *i. e.* more or less hard flesh, may be obtained under systems both of stabling and exposure, I am fully convinced, from my own observations and experience, because, it is an event dependent only in degree on stables or exposure. Condition is a relative term, but, in the abstract, that state of body that enables an animal to undergo exertion without fatigue, and, as regards the cavalry horse, the more condition the more ability to undergo the fatigues of a campaign, particularly in this climate, where ordinary exertion produces fatigue; to perform extraordinary exertions, therefore, the highest possible condition is necessary.



There are many modes of feeding and management which give more or less soft flesh ; but that peculiar state of the muscular fibres which constitutes the essence of condition, is slowly acquired by work, under either system of stables or exposure.

It is this state that enables horses to bear exposure to the vicissitudes of climate well, in proportion as they are adapted by kind and make, which gives the power of converting food into nourishment, and bearing work. Mr. Moorcroft, aware of this, like a scientific breeder, wished to introduce a particular variety, but mistaken notions of economy have led to chance medley-breeding, and the consequence is, that, after many years breeding, we have not a variety adapted as yet to our purposes.

If the cavalry horse be not worked, he is unable to perform what might be required, probably, at a short notice. It has always appeared to me bad military policy to work our irregular cavalry, as we do at all times, into condition ; the vipers which might turn and sting us, instead of taking out the fangs, throwing them out of condition, by embodying them only occasionally, (similar to yeomanry cavalry in England.)

These will be brought forward in support of the exposure system ; but, I trust, I shall make out that the question is extrinsic to stables or exposure. *Work!* Work the regular cavalry horse, but give him a stable, and, when exposed, follow the practice of the natives.

The regular cavalry horses, at this time of the year, are fed partly on green grass ; notoriously short of work, so that, if called on, casualties must occur, whether they were under stables or picketed in the open air. The more full of flesh the cavalry horse is the better, provided he has had plenty of work, particularly if likely to undergo a protracted campaign, and this condition of body is sooner obtained and kept up under stables. If exposed, they require more food and clothing to keep them in comparative condition, so that it is not a measure of economy ; and if this be the object of the questions, I consider I should not be doing my duty, did I not strongly protest against the latter system. To expose European officers to lose their health, or horses to the chance of diminished condition, is most unwise and ruinous. Take away the stables, a portion of the condition is lost, if exposed to wet, and feeding in wet food ; counteract it how you may, by masaulahs, high condition no longer exists, and then Shakespeare's words apply most fully,—“ You take my house when you do take the prop that does support my house.” Our horses would be then equal to those of our enemies,

just in proportion to their work; but they have the advantage of looking after their own property.\* The practice of the natives, in and beyond the British territories, is to take every means in their power, by high keep, masaulahs, and clothing, to counteract the vicissitudes of the climate, when horses are exposed; and to avail themselves of stables in bad weather, when they can, and always when they want to get horses quickly fat for sale.† To judge fairly, the horses should be of the same kind, and make, and be sound, under the same previous and present management, and condition, stabled or exposed in the same climate, undergoing the same exertion as to rate, weight, and distance. In the absence of such information, principles must be referred to, and my observations amongst horses of every description, and under all circumstances, for upwards of twenty years, support what I have here endeavoured to explain of the principles I was taught. I saw no other way to prevent the Committee of Finance being led away by bare matter-of-facts.

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### SCROTAL HERNIA WITH HYDROCELE.

By W. DORROFIELD, M.R.C.V.S., Rickmansworth.

IN the beginning of the month of June, a farmer in the neighbourhood requested me to look at a two-year-old entire colt, which he said was ruptured. In the course of a day or two I called to see the animal, and found him affected with scrotal hernia on the left side. On manipulation, the intestine was readily returned, and as easily insinuated itself into the sac again immediately the pressure was removed. I told the owner, the case was one in which an operation might be attended with the best results; at the same time informing him of the amount of danger that would necessarily attend the operation. The owner said, he would consider the

\* The late Marquis of Wellesley, when Governor-General, said "he would rather fight than pay them;" others have been of contrary opinion, so they are alternately subsidized and disbanded in every war, and the mares, on which they are mostly mounted, are therefore not used for breeding, and scarcity of horses for regular cavalry is the result. Irregular cavalry should be obliged to be breeders. What is to be done with these Cozaks? is a problem the Indian statesman has to solve. Registration of their places of abode, when not in service, is most necessary. This is a better subject for the Military Committee of Finance.

† The commandant of Skinner's Irregular Cavalry, and his officers, used stables at Hansée. This expense, for they had many horses, they would not have incurred, had they considered the exposure their troopers' horses were obliged to undergo most beneficial.

matter. I heard nothing more of the colt until August, when he was sent to me to do as I liked with. The hernia now put on a frightful appearance, the sac extending nearly as low as the hocks: the rapid increase of size I attributed to the work he had been doing in the mean time. I was now very cautious, having ascertained that (previous to the present owner buying him) every veterinary surgeon and contractor that had seen him had refused to have anything to do with the case; but having in the first instance said an operation was admissible, I resolved upon performing it. The colt was cast and placed on his back, the covered operation being performed in the usual way; but instead of taking off the clams on the third day, they were allowed to remain on until they sloughed off. (I will here state that, on opening the scrotal cavity in the right side, about two pints and a half of serous fluid escaped.)

The after-treatment consisted in a mild dose of physic, short commons, with the occasional administration of diuretics, and frequent scarifications to abate the swelling, which was alarming for some considerable time, the wounds being well cleansed every morning. I experienced considerable difficulty in getting a healthy action in the wound on the right side, which ultimately was accomplished, and the animal is now perfectly recovered, and at work with a scrotum of an ordinary size.

I believe it to be the prevailing opinion, that hydrocele does not exist in the horse but in connection with ascites; here is an instance of that disease (if not pure) at any rate not in any way associated with ascites, as not the slightest symptom of that affection was present.

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## FRACTURE OF THE OS HYOIDES.

By M. HERAUD, M.R.C.V.S., Calne, Wilts.

SIR,—I enclose you a portion of a fractured os hyoides; and, as I never remember hearing of such a case, I think the particulars of the present one may perhaps interest your readers. They are these:

On Friday, the 4th of November, I was sent for to attend to a colt belonging to Messrs. Maundrell, of Calstone Farm, near Calne, whose head they said had been swelling all day. Being out on my rounds I did not arrive there till about 5 p.m. I found the animal to be a very fine

two-year-old off, brown colt. The head was swollen on the off side, commencing from the zygomatic ridge, and extending to the lips. The tongue was hanging out of the mouth, a good deal enlarged, and was motionless. The pulse was natural, as were likewise the mucous membranes, as observed on the opposite side. The appetite was good; but there seemed an inability to swallow. I thought it was the effect of a blow or kick, and therefore ordered fomentations, and administered an alterative drench, very little of which was swallowed. After remaining with her two hours, the swelling so rapidly increased that I bled her, generally and locally; but without its having the slightest effect. The tongue became gradually more enlarged, the swelling extending to the other side of the face. About twelve o'clock the breathing had become difficult, in consequence of obstruction of the nasal passages; while underneath the jaws there appeared an exudation of serum, very viscid; considering this as an effort of nature, I repeatedly scarified the whole extent of the swelling, and the fomentations were kept up incessantly, with the addition of poppy-heads, opium, &c. The difficulty of breathing still increasing, I judged it prudent to obtain the instruments for tracheotomy, and remain with my patient all night. Up till half-past six o'clock in the morning (Saturday) the enlargement of the whole of the head and tongue had still rapidly increased, until it became quite a wonderful object to look at, while the poor animal was unable to support it without the rest either of an attendant, the manger, or the ground. There was a constant dribbling of saliva, and the sides of the *frænum linguæ* were thickly furred, and an unpleasant smell began to arise. I was now at a complete loss to divine what was the cause of all this enormous effusion, imagining there might be some internal abscess, either internally, about the root of the tongue, or the frontal sinuse, &c., or somewhere that might point outside. I endeavoured to administer gruel with the catheter and pump, but directly the tube touched anywhere about the region of the velum palati, the struggles of the unfortunate animal became so violent that I was obliged to desist, and content myself with ordering a pint of gruel per rectum, every two hours, and the bathing to be still continued, and also the steam of turpentine, from off a warm brick, to be now and then held under his nose. I then left him for the day. I may state that the nasal passage on the near side had preserved its natural condition for some hours, so I did not fear suffocation whenever I left him. About eleven o'clock, however, I was sent for again. I found the swelling somewhat



decreased, and a little motion of the under lip, which made the owner think him a little better. I again scarified the lips and tongue, and obtained a plentiful discharge; but there was no further alteration until four o'clock, when, having other patients to visit, I was again compelled to leave him.

Chancing to be sent for to a violent case of cholic, which detained me until four o'clock on Sunday morning, I was too much knocked up to visit the colt until about half-past eleven, when I found him lying down, leaning on his tongue, with his head in about the same condition as before. I made him get up. He was exceedingly tucked up, and very weak, and his difficulty of breathing was excessive. I saw he had not long to live. He died about half-past one.

On Monday I made the post-mortem. The whole of the cellular tissue, and of the head and tongue, were filled with serum. The vessels of the off side were very much congested, as also were the muscles; and periosteum of the lower jaw came off as though it had been boiled. The whole of the mucous membranes of the part were the colour of mahogany, as likewise were the buccal and Schneiderian, and those of the larynx and pharynx. On carefully removing the lower jaw, *the os hyoides was found fractured*, as you see it. There are three pieces; the smallest, you will observe, is the dentoid process, which was torn out of the skull, taking a portion of the plate of bone with it.

This appears to me to be a very curious case. It is one in which certainly no good can be done; and on witnessing the symptoms, it appears to be the veterinary surgeon's duty to order the animal to be at once destroyed. But what could be the cause of it? This animal was particularly quiet, and a favorite of all who had to do with him, and was regularly worked up to Thursday night, and, as usual after baiting, was turned out to grass. Perhaps, sir, you can throw some light on the subject.

I am, Sir,

Yours respectfully.

Nov. 14, 1853.

\* \* We have no recollection of ever hearing, seeing, or reading of such a case as the one before us: it appears to us to be *unique* in Hippopathology. What is likely to have been the cause or occasion of a fracture of the os hyoides, becomes here a speculative question, since no clue whatever appears, in the case, to account for it. That its origin was injury of some kind seems evident; and that the injury was occasioned by *external*, not internal, means, seems hardly less

certain. Could violence or inexperience in giving a ball have produced it? This, just now, is the only probable cause which suggests itself to our mind.—ED. *Vet.*

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## VETERINARY JURISPRUDENCE.

### BREACH OF WARRANTY.

#### *Phillips v. Cane.*

(COUNTY COURT).—This was a case of breach of warranty of a horse which excited considerable interest, as well as another for shooting a shepherd's dog, belonging to a lad late in the employ of Mr. Brown, of Farleigh. In the former cause, Mr. Lewin Phillips, of this town, grocer, was plaintiff, and Mr. Thomas Cane, of Burghfield, Berks, farmer, defendant. For the plaintiff, Mr. Prickett; for defendant, Mr. Slocombe, of Reading. The plaintiff stated that he bought a horse of the defendant in July last, warranted sound, for £29, but which soon afterwards fell lame, and a veterinary surgeon, Mr. Loader, of Basingstoke, proved that he had examined the horse at the time of the sale, but refused to pass it as sound, although nothing appeared to warrant him in describing it as unsound. On his assistance being afterwards required he found thrush in both feet, which yielded to treatment; and he then ascertained that the horse had recently had an acute attack of laminites, from having been driven fast on hard roads, which produced contraction of the feet and permanent unsoundness. On the part of the defendant a veterinary surgeon, Mr. Wheatley, of Reading, proved that he had on the previous day very carefully examined the horse, and could discover not the slightest traces of laminites; that although the feet were weak and not well formed, it was a mere natural defect, and he considered the animal to be perfectly sound: he, however, admitted, on cross-examination, that he had examined it with reference to *thrush* and grease only, and had not removed the shoes, which, indeed, he said would have been unnecessary even if the existence of laminites had been suspected. Other witnesses were examined on both sides, and the judge, after remarking on the conflicting testimony, always given in horse cases, gave judgment for the plaintiff for £13 16s., the amount claimed, plaintiff having received the difference on a sale of the horse in the public market.—*Reading Mercury*, Nov. 5.

## A KIDNEY DROPPER.

*Lambeth Police Office.*

AN application was made to the Hon. *G. C. Norton* on behalf of a gentleman named Eastman, for his advice and assistance under the following circumstances :

The applicant stated, that on the 25th of last month Mr. Eastman purchased a horse at Mr. Rea's extensive horse repository, near the Elephant and Castle, for 18 guineas, and received a warranty that the animal was quiet to lead, ride, and drive in harness. The horse, which was a very showy one, was taken home, and Mr. Eastman took it out for a drive, but had not proceeded more than a mile and a half when the animal came to a dead-stand still, and if it had not been supported would have dropped to the ground on the spot. With much difficulty the horse was removed to the stables, and a veterinary surgeon sent for, when it was discovered, from its hind legs giving way, and other indications, that the poor animal was labouring under a serious disease, and was what was called a "kidney dropper," and almost valueless. The horse was, in consequence, taken back to the repository, and a demand made for the return of the 18 guineas, but the only terms offered him was another horse in exchange, on condition of his paying 10 guineas additional.

*Mr. Norton.*—The question is, whether it would not be better to accept the offer, for the fact is, that the horse purchased seems to justify the general warranty of being quiet to lead, ride, and drive, and that this disease only exhibits itself after he has been driven a certain distance.

*Applicant.*—Mr. Eastman, having been once imposed on, does not wish to run a second risk by taking the other horse : and besides, the consequence of such an arrangement would be, that others would be imposed on by the "kidney dropper," which is a fine looking and showy animal. Beyond this, Mr. Eastman is of opinion that the horse is known among the dealers as a permanently diseased and worthless animal, and that this fact cannot be unknown to the persons at the repository.

*Mr. Norton.*—Have you any evidence to show or prove that anything was known at the repository respecting the disease of the horse ?

*Applicant.*—No, Sir, not any direct evidence ; but a person named Bushell, who represented himself as the owner of the horse, though such was not the fact, had, after the sale had been effected, repeatedly said he was certain the animal would

not answer Mr. Eastman, and the best thing he could do would be to get rid of him ; and from these and other insinuations, Mr. Eastman was under the impression that the horse had changed hands a great many times.

*Mr. Norton.*—If the person who sold by auction, or the other servants in the repository were aware of the state of this horse, it was highly improper that they should permit the sale of such an animal. I shall therefore send for Mr. Rea, the proprietor, and hear what he has to say on the subject.

In a short time the clerk of Mr. Rea attended, and assured the magistrate that nothing whatever was known to Mr. Rea, or any person belonging to his establishment, of the unsoundness of the horse. Had they been made acquainted with it the sale at that place would not have been allowed. He also said that after the horse had been brought back by Mr. Eastman, and it was complained that he could not draw, the animal was put into a heavy cart, and drew it over the grounds attached to the repository very quietly, and the purchaser then seemed perfectly satisfied.

*Mr. Norton.*—The representation that has been made is this,—that after going some distance—a mile and a half—his hind legs gave way, and he was unable to move.

*The Clerk.*—Well, Sir, we have given no guarantee of soundness ; all that is represented in the catalogue of sale is that the horse is quiet to lead, ride, and drive ; but Mr. Eastman has been offered to be repaid his money, provided he gives an indemnity to Mr. Rea, to secure him against all costs in an action that has been threatened against him for the amount of sale, &c.

*Mr. Eastman.*—I have offered to give such a guarantee myself to Mr. Rea's lawyer, but I did not see the necessity of employing an attorney to do so.

*The Clerk.*—All Mr. Rea requires is that you give such a guarantee as will satisfy his solicitor, and your money will be at once returned.

*Mr. Norton.*—Nothing can be more fair, and (addressing Mr. Rea's clerk) my principal object in sending for Mr. Rea was not so much on account of the present case as to express a hope that he would, by discountenancing in every way the many impostors in horseflesh, and protecting the public from the scandalous tricks not unusually practised at such places, acquire a high character for his repository.

The clerk said he should convey to Mr. Rea, his employer, the expressions of his worship, and he felt perfectly satisfied that Mr. Rea was the very last person on earth to countenance



anything wrong, and that no exertions would be wanting on his part to prevent fraud or imposition, and secure the protection as well as the confidence of the public.

## REVIEWS.

Quid sit pulchrum, quid turpe, quid utile, quid non.—HOR.

THE DISEASES OF THE CHEST AND AIR-PASSAGES OF THE HORSE.

By WILLIAM PERCIVALL, M.R.C.S. & V.S. *A New Edition, thoroughly revised, with extensive additions.* 8vo, pp. 224. Longman and Co.—London, 1853.

THE medical fashion of the day most decidedly is Homœopathy; and never was a fashion, on the one hand,—stretched to a more extreme point, becoming not only “fine by degrees and beautifully less,” but being carried to that minute degree of attenuation, as at last to make us doubt the truth of the axiom, *ex nihilo nihil fit*;—nor, on the other, been more caustically treated by the stinging shafts of sarcasm and ridicule—which of these two extremes may be right, “who shall decide when doctors disagree,” but fully coinciding in the maxim of this most utilitarian age, that “the better part of valour is discretion,” we are content to believe that *in medio tutissimus ibis*.

One fact, however, is incontrovertible,—that the great bulk of practitioners, both human and veterinary, are rapidly becoming practical homœopathists. Is there a practitioner now in existence, removed from the lowest grade, who would think of giving the huge farragos of heterogeneous matters that were daily administered some twenty or thirty years ago? Nay more, where are the practitioners who would give the more scientific but over-charged doses, which they, some ten or fifteen years since, administered? and we may go yet further, and inquire where is the practitioner who does not,—instead of trying how large a dose of this or that medicament he can employ,—carefully ascertain, and well weigh the effect of, the smallest doses, by which any given effects can be produced.

Where is the boast of having cut down this and that disease, by the abstraction of quarts and gallons of blood, repeated again and again, in which we plead guilty, at one stage of our professional progress, of having indulged, now? when not only the more reasonable question of how far this system of depletion can be lessened is constantly discussed, but also the extreme one, of how far the fleam and lancet should be altogether dispensed with.

Gossiping on this subject at my druggist's the other day, the intelligent gentleman, who formerly travelled for the establishment, but is now one of the firm, bore testimony to the correctness of these views, in the medical as well as the veterinary world, by stating, that when he was on the road, some twenty years ago, he used to have entrusted to him, by different medical men, every journey, some twenty or thirty cases of lancets to have set and sent with their drugs, while now-a-day a request of the kind is rarely or ever made. I repeat, therefore, that we are practically becoming homœopathists, and whether we take *similia similibus curentur*, or *contraria contrariis curentur*, as our motto, we are lessening our depletions, moderating our doses, and treating our patients on a much more rational system.

There must be some cause, however, for this difference in the mode of treatment, otherwise *ceteris paribus*, it would have gone on as usual, and this cause is to be found in the altered character of diseases, which is now of an asthenic rather than of a sthenic nature; the mucous membranes suffer more in connection with the serous, and the typhoid type will be found the prevalent one of the present day; as a consequence, the active depleting system has to be exchanged for a soothing and sustaining one, and the treatment in many cases to be considerably modified. That these are not the opinions of a mere individual, but are becoming recognised as the current data of the day, is abundantly proved in the new edition of the 'Diseases of the Chest and Air-passages of the Horse,' by Mr. Percivall, just issued from the press. The clearness and perspicuity of arrangement in this volume, the minute description of symp-

toms, the carefully drawn diagnosis, and the correct reasoning on the mode of treatment, render it a most valuable work, not only to the junior practitioner, but to all those who wish to form correct ideas of the various forms of disease they are called on to treat—the simple but lucid classification of the progress of disease, from the common catarrh to the fatal pleuro-pneumonia, will afford to those who study it well the means of forming a decided and satisfactory diagnosis.

We can scarcely speak in higher terms than this, and were almost afraid we should find no bone of contention with the author, barring—for in this we are obliged to trust entirely to his authority—the efficacy of salivation in the horse; for we confess to having met with one or two such awkward results, in trying to produce this effect, that we have for a long time given it the wall; should, however, time and experience confirm his views, there can be no doubt of its being a most valuable adjunct to veterinary medicine—afraid we should find no bone of contention, till we came to the chapter on Pneumonia; and then, though well pleased with symptoms, diagnosis, prognosis, and all, we felt the flush of our critical acumen coming over us, and, lying down the volume forthwith, sat erect in judgment thereon.

It will be perceived we had read further and retraced our steps, when we allude to the use of tartarised antimony as a counter-irritant; for years our opinion has been that no animal ought to be allowed to die of pneumonia or pleurisy, without the application of tartar emetic ointment to the chest and sides, which is by far the most powerful counter-irritant we have; and, in fact, it is the mere dread of its power that alone prevents its more general use; unlike cantharides, which produces merely vesicles from its operation, this produces pustules, and so apt are these to run into a state of sloughing that most fearful blemishes are too often the result; but that it will take effect on the skin, when blisters are utterly powerless, and in this way will often save life, we are as firmly convinced as of any fact known to us—a drachm of antimony to an ounce of lard will produce a re-action over “the very ribs of death.”

But it is at page 113, that instead of being “all of a heap,”

as the poor patient is described, we feel arrayed in all our power. Fever in the foot, as a metastasis from pneumonia! Tell it not in Gath that even it has been written, for we unhesitatingly assert that such a phenomenon was never known to occur in the annals of disease. You may have fever in the feet, as a metastasis from enteritis, just as you may have inflammation of the theca of the tendons—so admirably described—as a metastasis from pneumonia; but the laws of nature are immutable; you will not one day have metastasis from the lungs to the theca, and another day to the feet, any more than you will have metastasis from the bowels in one instance to the feet, and in another to the theca; no, transmutation of disease does indeed occasionally take place, but it is always in accordance with some law, known or unknown. Who would ever talk of the gout flying to a man's heart, or the rheumatism to his stomach? We know too well that these every-day diseases may indeed assume a fatal form, but we know equally well the tissues through which it will be developed.

In support of this view of the question we must state our perfect conviction, that in all those cases where laminitis has been supposed to be subsequent to pneumonia, that pneumonia has never existed; but that the quickened pulse and the accelerated breathing have merely been the symptoms of the early stage of the disease, which has not been correctly recognised till the more formidable symptoms have been fully developed.

We are sure our Editor will not take umbrage at this difference of opinion on a most important point, more especially as, from the very slight notice he has taken of it (metastasis to the feet), he does not appear to have given it that mature deliberation it so well deserves. We take our leave of him with all respect; and can only say in conclusion, that a more pleasant volume on a medical subject we have not for a long time had the good fortune to peruse.

G.

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SIMPLE REPONSE AU DERNIER MOT SUR INOCULATION DE LA PLEUROPNEUMONIC EXUDATIVE DANS L'ESPECE BOVINE, D'APRES LE PROCÉDÉ DE M. LE DR. WILLEMS. Par T. H. MARIS, Médecin Vétérinaire du Gouvernement à Hassell, Août, 1853. Pamphlet, pp. 33.

*A Simple Reply to the Last Word on Inoculation for Exudative Pleuro-Pneumonia in the Bovine Species, according to the procedure of Dr. Willems.* By T. H. MARIS, Veterinary Surgeon of the Government at Hassell, August, 1853.

FANCIED discovery, when sanguinely persisted in, and followed up at great cost of money, as well as heavy responsibilities of character and reputation, is apt to be pursued to a length which in the end leads to virulence of contest with those who may oppose it, to enmity and hatred against them; nay, even to destruction itself to one party, and possibly to the other too. By the above pamphlet—for which we are indebted to the thoughtfulness and kindness of Professor Simonds, of the Royal Veterinary College—we learn that Dr. Willems has been launching forth *une brochure*, entitled, “One word more on Inoculation for Pleuro-Pneumonia in Cattle,” replete with bad feelings, stirred up in him with the desire of turning public opinion in his favour, in a cause said to be so far lost as to render further defence of it hopeless and vain.

“So virulently (*sans merci*) have I, myself,” says M. Maris, “been maligned, as well as the honorable members of the Belgian commission, and veterinary surgeons in general, who may have entertained any opinion against the inoculation, that I am at length resolved to break a silence which up to this moment I have preserved. In the enjoyment, in the province of Hassell, of sixteen years of practice, with unblemished reputation, I have obtained the appointment of Government Veterinary Surgeon, as well as that of *Member of the local committee instituted at Hassell for the purpose of ascertaining the efficaciousness of inoculation, as practised by Dr. Willems.*”

In the ardent desire of extinguishing a fever which hitherto had resisted being put out by the Veterinarian's art, M. Maris had thrown himself into the inquiry, under faint hopes of

success, in which, from the exceptional position in which he stood, he found himself in the midst of the destructive plague itself, and there had better opportunities than his colleagues of experimenting on a large scale.

In 1852, M. Maris was invited to the stables of the senior M. Willems, at Hassell, where he was struck at seeing one ox in particular, with the root of his tail enormously swollen, among a dozen or so of other oxen who had already lost in part or entirely their tails. This appearing a heavy grievance, M. Maris expressed his doubts that the tail was happily chosen for inoculation; and added, that he had formerly introduced counter-irritant medical remedies within the dewlap. He suggested to Dr. Willems also, that it was possible that the matter employed in inoculation, might have something to do with such malignant consequences—that the then transparent fluid collected from the cellular tissue, or surface of the pleura, might be very preferable to that extracted out of the lungs of the dead beast, as he took it. At this M. Willems flew into a rage, and accused “me” with a desire to destroy his work, by disfiguring his bantling; though in the end he adopted “my” suggestion. Subsequently, likewise, he preferred the dewlap to the tail for inoculation, alleging as a reason, that, under risk of accident, and in hot weather, he considered it best, and at the time confessing, that the change had arisen with M. Maris; although in the very month that he made this avowal he addressed a letter to the Central Committee for Pleuro-pneumonia, sitting at Brussels, in which he accused “me” of killing different subjects, by resorting to such a difference of his (Dr. Willem’s) practice.

M. Maris finds that the doctor’s displeasure arose out of the following causes, viz.—

“1stly. Because I had made known, with impartiality, the bad as well as the good effects of inoculation.

“2dly. Because I had shown to Dr. Sauveur, member of the Central Commission, during his visit to M. J. J. Van Vinckeroze, an ox that had fallen ill of pleuro-pneumonia, twenty-eight days after inoculation.

“3dly. Because I had wished to show to M. Ivart two oxen, dangerously ill in consequence of inoculation, which had

been operated on by M. Willems: a result he desired to have concealed, under the pretext that it was not expedient to exhibit facts of this description to strangers, lest such (facts) might alarm them about the consequences of such operations.

4thly. Because the autopsy of an ox successfully inoculated, but become pneumonic, had been made in presence of the governors of the province.

5thly. Because, in my letter of the 2d August, 1852, I had communicated to the Central Commission the indelicate result of the experiments made at Meuling's house at Hulst.

6thly. Because I had furnished the Central Committee with proof that the heifer from the stables of M. Fabrez, and slaughtered on account of pleuro-pneumonia, had been inoculated."

We cannot find room for more of M. Maris' *brochure* of replication. We have said enough, we conceive, to give our readers an inkling, that Professor Simonds drew from his fair and judicious experiments, a pretty correct deduction, when he said, "that the severity of pleuro-pneumonia is in no ways mitigated by previous inoculation, the disease proving equally rapid in its progress and fatal in its consequences in an inoculated as in an *uninoculated* animal."

And now, it must be patent to everybody what M. Maris' opinions are of Dr. Willems' "système" of inoculation as a prophylactic against pleuro-pneumonia.

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### Foreign Department.

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#### CONSTRUCTION OF THE CAVITY OF THE THORAX IN THE HORSE, CONSIDERED WITH RELATION TO DIAGNOSIS BETWEEN DISEASES OF THE CHEST.

By Dr. MULLER, of the Veterinary Institute of Vienna.

(Translated and Analysed from the *Magazin für del Gesammte Thierheilkunde*.)

GREAT pains have been taken of late to arrive at a knowledge of the symptoms proper to make the requisite distinction between the different diseases of the chest during the life of the animal. By analogy with what is done in man, essays of auscultation and percussion have been made in the horse; the matter, however, has shown that, from the construction of the thoracic cavity, as well as from his own observations,

which are very numerous in regard to it, that the results obtainable from auscultation and percussion of the chest in cases of disease in it, have proved, if not *nil*, at least very problematical. It has appeared to him, as well as to other veterinarians, impossible to hit upon any diagnostic product of auscultation, which could unfold his doubts, or even establish a false diagnosis. In cases such as the last he has often found *post-mortem* pathological productions for which he had made no sort of calculation whatever.

The construction of the thoracic cavity of the horse differs much from that of any other animal. Whilst in man, the ox, &c., the true ribs constitute, in a great measure, the parietes of the thorax, in the horse the parietes formed by the true ribs envelope only the smallest portion of the lungs. In its anterior part, the thorax is so narrow that from a level with the sixth rib, it contains only, over and above the great vessels belonging to the trachea and heart, a tongue of lung on each side, about one tenth of the thickness of the organ. And the direction of the diaphragm is such that its inferior border is attached on a level with the 7th and 8th ribs, while the superior reaches as far back as the 18th. In consequence of which it happens that the front part of the lungs lie over the abdominal viscera. Especially is it worthy of remark that the lungs are placed within on the same region in point of function as the stomach and the liver. Here also has the thorax its greatest extent of capacity. From this it follows that percussion must most often lead to error, since the gases generated in the stomach and large guts surrounding it, impede the discovery of impermeability of substance of lung, or even of positive exudation.

At the anterior parts of the thorax, the thickness and fleshiness of the shoulders obstruct the recognition of morbid processes going on in the fore-part of the lung, a circumstance the more to be regretted since this part in the horse, as in man, is the oftenest found diseased. Add to this the presence of the trachea, the aorta and the anterior vena cava, and it must be evident, according to the simple law of acoustics, that it is impossible to detect, with any positive accuracy, the slightest symptom.

The principal circumstances which, according to Muller, hinder the appreciation of morbid changes in the lungs, through auscultation, are, on the one side, the structure of the lung and the dimensions of the pulmonary air cells, and on the other side the existence of a third lobe of lung which produces, in the centre of the thorax, modifications existing in no other animal.



The substance of the lung in the horse, in its normal condition, is dry, less rich in blood, than the pulmonary substance in man. The division into lobules is less marked, the air-cells are contracted, very small and delicate, insomuch that under the microscope they appear much finer (wrought) than in man. This is the reason why, under pneumonitis, the substance of the lung appears so finely granular that it seems as though it were homogeneous: though, for all this, the bronchial tubes preserve, throughout, their finest ramifications and their cartilaginous ring-like structure. Respiration, normal and unagitated, is in general carried on so softly that no vesicular murmur is heard: that is only to be detected when the breathing becomes accelerated. As a general rule, vesicular respiration denotes a morbid change already commenced, an incipient pneumonia, or else an acute catarrh. Often, likewise, is this to be heard in the sound parts of the lungs, when the other parts of the organ are impermeable to air. Through the ramifications of the trachea likewise, formed of cartilaginous rings, penetrating close upon the surface of the lung, whenever serous exudations take place in the chest, and compression of the air cells by the liquid occur, the respiratory murmur may be heard, although in another part the lung is impermeable.

In the horse there exists, behind the heart and between the two compartments of the chest, underneath the œsophagus, a longitudinal space of square and ample dimensions, being four inches in breadth, and above ten inches in length; within which interval is lodged a lobe of the lungs of a triangular form, commonly regarded as an appendix to the right lung. This lobe, which is found only in the horse, causes the greatest difficulties to diagnosis in the diseases of the lungs. The pulmonary serous membrane also inclines from the same causes to particular modifications. This third pulmonary lobe, said to be an appendix to the right lobe, is naturally enveloped within a proper serous membrane, continuous with the same on the right side by a duplicature reflected from underneath by the posterior vena cava. Within the space formed by this duplicature, which cannot be regarded as belonging to the mediastinal interstice, there is deposited, in horses well kept, a notable quantity of adipose tissue. Through disease or emaciation this tissue grows more fluid, so that at times this collection gives rise to a belief of morbid exudation.

With horses exempt from any disease of chest, the serous duplicatures which form a partition between the lobes of the lungs, exhibit constantly perforations of the size of peas,

through which is established a free communication between the three cavities formed by the pleuræ, in such manner that in a horse of normal structure there exists but one pleural sac. When Muller saw these perforations for the first time, he thought that they were owing to the shaking about the carcass had experienced. But minute examination, with all the care possible, showed him the unvarying existence of these perforations, and often in innumerable quantity. He found the separation complete only in the foetus Professor Larveul has described this particularly in his '*Treatise of Splanchnology*,' Paris, 1847, a peculiarity which accounts for the passage of morbid effusions from one pleura to another; at least, providing these apertures be not closed by false membranes, organised productions of inflammation. If my memory be faithful, Professor Thiernes had already demonstrated these perforations in his course of descriptive anatomy for 1840.

It necessarily results from this particular disposition that the signs with which auscultation and percussion may furnish us, for the detection of disease of the chest in the horse, equally possess something particular. If the third lobe of the lungs be alone attacked, and it is often so in the first instance in pneumonitis, neither auscultation nor percussion can prove of any great assistance to us for the detection of the disease. M. Muller has seen a case, wherein, as the result of a plastic inflammation, the sac of this lobe had become closed; and the exudation being thereby encysted, the animal died from the purulent resorption, without his being able to appreciate the slightest symptom through percussion and auscultation.

The mobility of the skin, occasioned by the remarkable action of the subcutaneous muscles, is an opponent to the employment of the stethoscope, with a view of auscultating the diseases of the chest of the solipede. We need make no mention of other numerous circumstances, hindrances to convenient percussion and auscultation of the chest of horses, with the intention of detecting this disease.

Nevertheless, M. Muller believes that, notwithstanding these inconveniences, auscultation and percussion of the thorax is capable of being of great help in discriminating between the different diseases of the chest. He especially insists upon the necessity of fixing the diagnostic of serous exudations within the pleural sac, since puncture (*paracentesis thoracis*) may render palpable service. Of nine horses treated for hydrothorax he has seen five recovered.

According to the conviction of Muller, four forms only

of disease of the pulmonary organs in the horse are detectable with more or less facility. 1. Pulmonary catarrh, acute or chronic. 2. Infiltration into the tissue of the large lobes of the lungs. 3. The formation of large caverns. 4. Effusion into the pleural sacs. Continuous researches through a series of years have especially demonstrated the impossibility of recognising œdemas and pulmonary emphysema.

As has been observed before, the anterior part of the thorax, that included between the shoulders, is not susceptible of having physical signs elicited out of it, either by auscultation or percussion, anywise calculated to demonstrate the nature of pulmonary disease. This accounts for Muller directing his researches to no part save what is posterior to the shoulder. About the middle of which latter space it is that, in its normal condition, percussion yields a full and clear sound. Ascending towards the vertebral column, the sound becomes duller, on account of the great thickness of muscle at this part. And as we go downwards, it is the same with most animals on the left side, on account of the presence of the heart. As we approach the abdominal cavity, the sound grows rather duller and becomes changed into a tympanitic one, proper to that cavity. Percussion by means of the fingers is sufficient for practice. The stethoscope is of no use, save it be for auscultation of the sounds of the heart. M. Muller especially remarks that, with animals more than with man, percussion and auscultation, if we are not in the constant habit of practising it, often leads to great errors, which is the principal cause why such means are so much neglected.

In the sound horse one scarcely hears any sound by the application of the ear against the thorax; at the very most we are able to descry a very light murmur during deep inspirations. Distinct vesicular sound denotes then an anormal condition; it is the sign of catarrh or of pneumonia, commencing at the part auscultated, or else of a morbid infiltration of another part of the lungs. After a slight movement we perceive the normal sound, a distinct murmur, is heard, and continues up to close to the shoulder-blades.

**SIGNS OF CATARRH.**—The sound elicited by percussion differs not ordinarily from the normal sound. But it may be clearer and fuller, though without being tympanitic. By auscultation, the respiratory sound is perceived to be stronger, as though the animal had been submitted to a brisk movement. Often we have but a humid râle towards the large divisions of the bronchial tubes. This râle may offer of itself different qualities, and be more or less mucous: never is it clear under simple catarrh without exudation in



the lung. Whenever this râle is clear, with metallic tinkle, however small, it no longer denotes simple catarrh, but indeed an exudative pneumonia, or an exudation that is recent, not having become yet solidified. Only, when there exist considerable productions of mucosities or frothy serum, can we make out the different mucous râles recognised in a man affected with catarrh. According to researches in pathological anatomy, two only of these affections are acknowledged in the horse:—1. Acute pulmonary œdema; 2. Enlargement of the bronchial tubes. Acute œdema of the lungs takes place often when there is tardy asphyxia, arising from mechanical impediment to respiration. Sometimes it comes on suddenly owing to violent efforts. In this case, percussion affords a full sound, clear and more elevated, the resonance being more prolonged. Auscultation yields sounds varying with the intensity of the disease; the râle may be more or less intense, and may amount to little or nothing at a time the disease is very violent.

Sometimes it happens that the bronchial tubes are considerably dilated; then is discharged (*per nares*) a yellow foulness, sticking close like purulent matter, which fills the bronchial tubes up to the trachea. This mucus it is that occasions, through respiration, the different sounds of râle and hissing recognised in man.

**SIGNS OF PNEUMONIA.**—Pneumonia in animals does not afford diagnostic signs so clear as are heard in man. The practitioner, habituated to researches after the physical indications of chest diseases, will readily distinguish a simple pneumonia, having a certain extension from simple pleurisy with exudation. However, the fact already mentioned, which shows that inflammation often breaks out in part of the lungs so profound as to be inaccessible to physical inquiries, as well as the combination of pleurisy with the pneumonia, or where one is often the sequel of the other, causes the differential diagnostic often to be very difficult.

M. Muller wishes it to be observed, that acute pulmonary catarrh affecting the air cells, is not to be distinguished by auscultation and percussion, from acute œdema, nor from pneumonia in the first stage, and that no exact difference is to be established even in the dead body. In the three cases, the signs of percussion and auscultation are the same; percussion yields a clear sound and full, and over a larger circuit. This resonance derives something from percussion of the abdominal cavity.

Auscultation in pneumonia, in its first stage, yields the indications of catarrh in a more marked degree; a vesicular hoarse sound often extends over the entire thorax.



In pneumonia, in the second stage, wherein hepatisation of the substance of the lung takes place, percussion yields a tympanitic sound, easily to be distinguished, having a tinkle which varies according to the places examined, without however losing its hollow resonance. Auscultation yields signs which differ essentially from those furnished by pneumonia in the second stage in man. Bronchial respiration is less clear, more hissing, sometimes easy. Often the bronchial breathing (*souffle*) is not heard but in expiration. It is often an unfixed respiratory sound. The *rubbing* noise is excessively rare, and never is heard save with complication of inflammation of the pleura. To this we shall return.

When pneumonia has reached the third stage, and the exudation has become purulent, the signs of percussion and auscultation become altered. Percussion yields a sound more clear and full, though, nevertheless, it remains tympanitic. Sometimes the sonority is very elevated and clear in a circumscribed spot: this is an indication of the existence in this place of an encysted abscess, communicating with the bronchi. When there is abundant exudation present, auscultation gives a kind of *râle* sound: we have too a vesicular sound, which may be compared to the purring that cats produce, and which coincides with bronchial respiration. The nearer the animal approaches his end, the more this *râle* sound becomes clear and irregular, while the contrary happens at the time the animal is becoming convalescent.

We possess no very certain diagnostic signs to detect lobular inflammation by auscultation and percussion, or only such signs as have too much analogy to those of catarrh. The physical signs obtainable in this manner possess no real value, until classed with other circumstances attendant on those diseases.

**SIGNS OF PULMONARY TUBERCLES.**—The same as in man, in the horse the points of the lungs are the parts ordinarily seized with chronic tuberculation. In this case, percussion in general fails to afford any information, while auscultation gives either the sounds of catarrh or indeterminate respiratory sounds. Vesicular respiration is more harsh, more intense; inspiration is readily distinguished from expiration, in a state of repose. From time to time we have a *râle* indeterminate from its depth. But where there exists a cavern of the volume of one's fist at least, the diagnostic of chronic tuberculation becomes more certain; we then have *cavernous respiration*. Often this cavernous sound is accompanied by a clear metallic one, which communicates to the pulsations of the heart the same tinkle, whenever the cavern is on the left side. This auscultatory apparition may, however, be absent for a longer or

shorter time, even though there exist voluminous caverns. This is especially the case when the caverns are filled with solid matter, or when the bronchial tube communicating with it is obstructed. But this absence of cavernous sounds ceases from the moment the contents are expelled, through some provoked cough.

Acute tuberculisations of the lung yields different physical signs. Auscultation gathers sounds of catarrh, or of the first stage of pneumonia. When there exists tuberculous infiltration, the indications are similar to those furnished by acute pneumonia in the third stage.

**SIGNS OF PLEURITIC EXUDATION.**—In this affection the differential diagnostic is especially important, and is not less difficult to establish than that of the preceding disease. Very small quantities of pleuritic serosity do not admit of recognition by physical indications. A considerable hydrothorax even is difficult of detection, unless it be accompanied by a plastic layer, at least an inch in thickness, upon the external surface of the lungs, and providing these last are not filled with air. The diagnostic also is but conjectural, when, as often happens, there is present pleuro-pneumonia.

When exudation is present in very large quantity, in such manner that the liquid produces compression upon the diaphragm and lungs, physical inquiries admit of a certain diagnosis, although often the morbid modifications appear greater at the autopsy than one had supposed them to be during the life of the animal. The upper part of the thorax yields to percussion a clearer, and more elevated, and a tympanitic sound: lower down the sound becomes void and flat.

Exudation never mounts so high as the upper part of the lung. When it has risen to cover *half* of the lung, it produces death. Auscultation proclaims at the superior parts of the lungs an indeterminate respiration. Towards the middle, the respiration becomes bronchial, while in the inferior region we have nothing but the respiratory murmur.

A characteristic symptom of pleurisy is the *rubbing* sound: this is the certain sign of a plastic exudation upon the free surfaces of the pleuræ. Nevertheless, it is not often that we discover this rubbing sound in the horse; one only hears it distinctly at the commencement or towards the termination of the disease, when the pleurisy is simple, or when it is complicated with pneumonia. Naturally, the appearances produced, and the pathological changes of the exudation itself, will vary more or less, according to the presence or absence of adhesions, encystements, and pneumo-thorax.

We never can be sure about pleuritic exudation of little

account, when percussion of the inferior half of the thorax produces resonance. Whilst we may probably be sure about the absence of air in the region, when there is an absence of all respiratory sound.

According to what has gone before, as well as to all that has been written on the physical means of exploring the chest for disease in animals, it is evident, that, in veterinary medicine, the study of auscultation and percussion is still in its embryo state, and that, in all cases, we must have practice and circumspection at our elbow to avail ourselves, with any advantage, of these two means of recognising the diseases of the chest.—*Repertoire de Méd. Vét.*, September, 1850.

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## Home Department.

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EXTRACT FROM THE INAUGURAL ADDRESS, DELIVERED  
AT THE ROYAL FREE HOSPITAL.

BY DR. TYTLER SMITH.

(*From the Lancet.*)

\* \* \* WHEN the sciences which form the present basis of medicine, were so little advanced that one man could teach the majority of them, or an admirable Crichton master them all in a single year, we may well believe a course of general medical education was impossible. Now the matter is widely different. The centuries behind us have accumulated such stores of science bearing upon medicine, that we may declare, without fear of contradiction, there is no other profession or occupation which rests on such a broad foundation. This the humblest student will feel at every step of his progress. I need not dwell on the extent of medicine, surgery, and midwifery—the three great departments of our profession; but I may, for the sake of illustration, refer to a few points relating to the more obvious requirements for medical education. To speak first of the *materia medica*. There is scarcely a country in the habitable globe which has not contributed to the substances in daily use in medicine. In the simplest prescription we may combine materials drawn from the four quarters of the earth. But what an extent of commerce, knowledge, and intercommunication was necessary before these various products could be collected and their uses ascertained. Then there is botany, including vegetable

physiology, itself a mature science, constantly ministering to the improvement and extension of our therapeutical resources. There is the noble science of chemistry, in great part as we may ever claim with pride, an off-shoot from the profession of medicine, which has contributed liberally from almost every element of which our planet is composed, and from new combinations of matter, which it has itself invented, to strengthen the armamentarium medicum. It has further become of immense service in anatomy, physiology, pathology, diagnosis, and toxicology. Look at the varied aspects of the great science of anatomy, as it is now studied and taught, each aspect as distinct as the face of a crystal, and each by itself a splendid acquisition in knowledge. Look at physiology, which deals with the functions of the human economy, and which has been enriched by the investigations and discoveries of the greatest minds that have adorned our profession; this department, especially, is constantly receiving additions from labourers in all countries where scientific medicine is cultivated, so that a great and intelligible meaning will ultimately be attached to every part of the human frame. Look at surgical anatomy, in which the organisation and relation of the different parts of the body are studied with reference to surgical diseases and operations, and which is the foundation of operative surgery. Look at what may be called therapeutical anatomy, in which the different organs of the body are studied while under the influence of remedies. Look again at medical anatomy, in which the same organs are investigated with reference to the diagnosis and the symptoms of every form of disease. Look at pathological anatomy, in which is traced all the lesions, and all the transformations of tissues, produced by disease. Look at what we may term chemical anatomy, which determines the quantitative and qualitative elements of which the body is composed, and the changes they undergo in the processes of daily life. Look at microscopical anatomy, which unfolds the invisible organisation of the structures which make up the human fabric, and from which we learn the relation of invisible parts to the visible whole. Lastly, look at comparative and transcendental anatomy, in which every part of creation, from the animalcule of to-day to the mastadon of former worlds, is used as a key for the interpretation of the rest, until at length we arrive at a comprehension of the ideas of the Creator, in making living creatures "after their kind," and, finally, "man, in his own image," and perhaps approached nearer to the Divine Author, than in any other branch of knowledge merely human. It was then,



only as one of the ripe fruits of civilisation that a medical school could exist. (Cheers.) But teaching nowhere begins or ends with itself. In a variety of ways it becomes a very important, I believe the most important, element in the progress of the profession. It has brought it to what it now is, and urges it onwards to that which it shall be hereafter. The system has many bearings, far beyond the communication of knowledge from professor to pupil. To some of these I may be permitted briefly to refer. It has often been lamented that our profession is practised in privacy, and that in the sick chamber, the highest exercise of talent, or the greatest errors, are alike shrouded from public view. In this respect, Medicine has, to its manifest disadvantage, been contrasted with the Law, the administration of which is always before the public. In medicine, it is only in hospital practice, and in hospital teaching, that medicine becomes to a certain extent a public ministration. There everything is done under the eager eyes of students, and competence need not fear nor incompetency hope to miss applause and censure. The poor man has not in sickness, like the prince, his daily bulletin, but his progress is watched quite as narrowly, when once his case has been brought into the critical arena of teaching. Through the combined influence of teaching, and the medical press, the cases of the humblest persons may come under the review of the entire profession. I need not attempt to prove that this system is beneficial to the poor, who are the subject of it. We are far enough removed from such compendious practice as that of Dr. Last, whose direction was, "Bleed the north ward, and blister the south ward, to-day; and blister the north, and bleed the south ward, to-morrow." But there is no such correction of mere routine, as public practice. There is another mode in which teaching becomes a great purifier and vivifier of the profession. Hospital appointments and professional chairs are amongst the highest promotions which the profession offers, and it becomes of the first consequence that they should be given only to the most worthy. All the tendencies of medical teaching are in this salutary direction. Teaching brought light to the hospitals, and it was this which created the opposition of the old hospital regime. The times when nepotism and favoritism were most rife, were those in which medical teaching was at its lowest ebb. When hospital practice was a private matter, hospital appointments could be bestowed without any great reference to qualification, but the publicity of our present system, a publicity daily becoming greater and greater, precludes this abuse to any great extent, and will in

the end destroy it altogether. The question of intellect and capacity everywhere obtrudes itself, and it must be answered, because the school in which this question is ignored, cannot fail to sink in the estimation of the professional public. Let any vacancy occur, wherever or whatever it may be, and there is no hospital so firmly fixed, that its managers can afford, in filling it up, to neglect the claims of superiority. We do not possess the *concours*, but we are thus acquiring a substitute for it, possibly more congenial to our national tastes and habits. It is worthy of observation, that medical education is the only education of a scientific character which exists on a large scale. Physical science scarcely enters into the system of education belonging to the other learned professions. In a study appealing, whatever its imperfections may be, at every step to experimental science, there can be no more powerful stimulus to the individual mind, whether of professor or pupil, than that arising from teaching. In the perpetual agitation of facts and opinions incidental to a teaching like that of medicine, discoveries and inventions are constantly maturing from numberless sources, and constitute those

“Truths of Science, waiting to be caught,  
That float about the threshold of an Age,”

but which the fit minds are able to cast in individual moulds and appropriate as their own. The noblest achievements of medicine and medical men, are traceable to the influence of teaching, rather than to the meditations of the closet. The highest scintillations of genius of which we can boast have been struck out by the relations between teacher and pupil. It was as a medical student that Galileo began his splendid career of invention. Harvey heard his teacher, Fabricius, descant upon the valves of the heart, the purposes of which were as yet hidden, and being himself appointed lecturer on anatomy at the College of Physicians, produced his great discovery of the circulation of the blood. Galvani, as an anatomical teacher, discovered that form of electricity which bears his name, and which has become one of the most powerful agents of modern civilisation. Jenner, while a student, was already revolving in his mind the germs of his priceless discovery. Studying under his teacher, Corvisart, Laennec was accustomed, while yet a pupil, to listen to the sounds of the chest in disease, with the hope of obtaining aids to diagnosis, and this led him, at the early age of thirty-five, to the discovery of mediate auscultation, and the invention of the stethoscope. Sir Charles Bell describes the discoveries which have made his name illustrious to have arisen from

the circumstance of his making a diagram of the nerves of the neck. But it is needless to multiply instances, which abound as well in those lesser utilities which are daily added to our profession, as in the highest regions of invention. These men are the teachers of teachers—the true Archiaters of our profession; the Hierophants of medical science! (Applause.)

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EXTRACT FROM MR. GUTHRIE'S INTRODUCTORY ADDRESS  
AT THE WESTMINSTER HOSPITAL, OCTOBER, 1853.

*(From the Lancet).*

AFTER speaking of the present regulations of the Council of the College of Surgeons respecting the attendance on lectures, Mr. Guthrie proceeded to say, "No man can be taught any practical branch of learning by lectures. They can only point out to him what he ought to learn, and by giving him a general knowledge of the subject, enable him afterwards to work out practically. I was once told by a student that he could describe any part in the human body, or in anatomy, he had not seen, just as well as one he had seen; nevertheless he did not know the very parts he had described to me when they were placed before him. He could state accurately enough the difference between a hernia, a hydrocele, and a varicocele. He was eloquent on the subject of the latter feeling like a bag of earth-worms; albeit he had never felt a bag of earth-worms, and did not know practically what sort of feeling it conveyed; and when I brought him here, and showed him these diseases, he could not tell one from the other, for he had never seen them. Lectures on all subjects should certainly be delivered annually. A student should attend one course of each, or make up in a second course for such parts as may have been accidentally omitted in the first. More is, in my opinion, unnecessary, as taking up time which may be more usefully employed. The certificates usually given of such attendances are sometimes fraudulent; little dependence can be placed on the accuracy of any of them, and the sooner they are abolished the better, being, in many instances, as great a discredit to those who give as to those who receive them. It ought not to be difficult to say what might be substituted for them; but it can only be done, I fear, with advantage when the College of Surgeons and the Society of Apothecaries shall cease to act on antagonistic principles—when the curricula, as they are



termed, for the education of a surgeon and apothecary, or general practitioner, shall be alike. Anatomy is the flambeau which lights the student in his way to the acquirement of professional knowledge; it is the most important study for the surgeon, yet it is one to which less attention is paid than it deserves, and this occurs, perhaps, as much from the manner of teaching as from any defect in the attention of the student. Formerly the largest and best-paying schools had only one, or at most two teachers of anatomy, physiology, and pathology, and one demonstrator in the dissecting-room; and it frequently happened that when the teachers taught in turns, the unemployed one demonstrated. When one person devoted himself to the teaching of anatomy, of which there is no example in the present day, he was constantly with his students; he knew them well, how much knowledge each possessed, and how much instruction each required to have beat into him. At present there are professors of anatomy, of general anatomy, of descriptive anatomy, of surgical anatomy, of morbid anatomy, of microscopic anatomy. There are demonstrators of anatomy, prosectors and superintendents of dissection, professors of physiology and pathology, all for one science, most of whom, or as many of them as exist together, teach for an hour a day, that a return in some degree to the old method would be very advantageous to the student. I would suggest that the teacher of anatomy should begin his course on the first of October, and continue it daily, six days in each week until the middle of the following January, when it should be completed. When he is aided by a professor of physiology and histology, or microscopic anatomy, this gentleman should relieve him, after the description of each system or part, and give their physiology. For example: after the lecturer on anatomy has fully described the bones, the physiologist should follow; after the demonstration of the muscles the other should succeed; and a lecture of an hour and a half's duration each day would embrace the whole of the subjects in the time specified. The demonstrator of anatomy should give a demonstration each morning for one hour in the dissecting-room of such parts as had been duly prepared by one of the students under his superintendence the previous day, so that by a frequent repetition of the anatomy and relative situation of the most important parts concerned in the practice of surgery, they might be thoroughly fixed in the mind of the student. It should, however, be borne in mind that a thorough knowledge of anatomy is the great point to be acquired during the four years of study ordained by the



Council of the College of Surgeons. The second course, beginning in January, might be a repetition of the first, with such omissions or additions as the teacher may think advisable, and might be ended on the last day of April, thus completing the session of seven months' teaching, formerly ordained by the College of Surgeons; but which, for no good reason that I am aware of, now terminates at six months, or the end of March, thus depriving the student of one month's opportunity for dissecting. The means or manner of instruction at present pursued, renders another party in many instances absolutely necessary to enable students who have been inattentive to undergo their ultimate examination with success. This gentleman is called a 'grinder,' and it is said that some so employed make from £1000 to £3000, a-year. They work hard, and, I believe, deserve the money. They beat into the heads of negligent students that information which they had failed to acquire during the proper period of their studies, and when thus ground, polished, or wound up to the proper point, they select their day for examination, and very often succeed. Information thus acquired is evanescent; it is soon forgotten. In a few minutes it is remembered no longer. It cannot be otherwise; and the necessity for such instruction is much to be deplored. It ought to be superseded in anatomy and surgery by the demonstrator in each school. He should be the grinder and polisher of the students under the professors of each of these branches, and the knowledge which is now very evanescent, if thus acquired, would be long, if not permanently remembered. I am desirous, in conclusion, to relieve your minds from some false impressions which are generally promulgated, with regard to the Court of Examiners of the College of Surgeons. The members divide into four parts, or tables, two of which examine in anatomy, two in surgery, and each table reports that the student is good, bad, or indifferent. If on the aggregate of the four there is one indifferent, it is considered as nothing. Two indifferents causes the person to undergo a written examination on the subsequent week; one bad does the same; but it requires the four tables to report against a man to cause his immediate rejection. The president, at the written examination, gives the questions, and three hours are allowed for answering them, more if desired; they are then read, and the decision is that of the whole court. It is obvious that no one examiner can, then, reject an individual, as students are very apt to suppose; and they may be assured a rejection is always a matter of regret to the examiners, which they would

willingly avoid if consistent with their duty—although I have often had the gratification of hearing men when they have come up for the second time, after six months' further study, acknowledge the service the rejection had done them, in making them, through shame and a proper sense of honour, labour more diligently. I may also add, in order to remove another error, that it is of no pecuniary consequence to the examiners whether a student obtains his diploma or not. Their remuneration is the same for rejections as for admissions; but those examiners only are paid who attend."

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### DEATH FROM THE BITE OF A CAT.

By GEORGE ALLEN, ESQ.

A report of the following case has appeared in the local papers. I had intended to bring the subject before the annual meeting of the Bath and Bristol Branch, but was prevented by professional duties. I now publish the case, as a general reply to the numerous letters which I have received on the subject.

CASE.—On June 6th, 1853, I was called to see Richard Hunt, who was stated to have been bitten by a cat eight days previously. The statement given to me was, that the cat had been ill for some days, that it had refused food, was very thin, and had a noise in the throat resembling that of croup, with hurried laborious breathing. A lad had taken the cat by the tail for the purpose of killing it. Richard Hunt, passing at the time, seized it by the loins, when the cat bit the joint of his left thumb, which became very painful, and before night the hand and arm were swollen and inflamed. On the following morning, bladders of water had formed round the wound, hand, and arm, but he refused to have medical aid. Linseed-meal poultices and lotion had been applied to the hand, and some Epsom salts had been given to him, and to all appearance he was going on well, until the third night, when he got inebriated. After this period he did not complain of pain in the thumb; the swelling of the hand and arm had subsided; but shivering came on with pains all over him, accompanied by great difficulty of breathing. No medical aid was sought for until eight days after the accident.

When I first saw him, on the morning of the 6th of June, I found him excessively nervous and dejected. The eyes were sunken, the breathing short, the pulse feeble. Upon

examining the thumb, and removing the thickened corrugated skin, a copious ichorous discharge followed, the surface below having a livid appearance: there was very little sensibility to touch.

I ordered the arm to be kept in a sling; brandy and balm in linseed-meal poultices to be applied, and removed every three hours; and brandy in gruel and arrow-root, and strong beef-tea, to be given. The treatment consisted of ammonia, camphor, and opium, administered at intervals of three hours. From this to the 17th of June the case proceeded with fluctuations, both in the condition and appearance of the wound and the febrile irritation, the only sharp symptom occurring being a "most violent pain at the right shoulder blade."

June 17th.—Mr. Allen was "hastily summoned to see him. He had been delirious, and had sprung out of bed, but was now lying perfectly calm. Vision was apparently gone; the breathing was stertorous, the pulse 130. In this state he continued on till the morning of the 20th of June, when he died without a struggle."

Decomposition set in so rapidly (favoured no doubt by the then hot and humid state of the atmosphere), that I had no opportunity of obtaining a *post-mortem* examination.

Two persons who had been in attendance on the deceased have since been taken ill.

The first was a young married woman, at whose house the deceased lodged, and who had constantly attended upon him and dressed his wound. She was seized, on the morning of his decease, with "synocha," in its most aggravated form, and had one symptom connected with the case of the deceased, by which I was most forcibly struck, viz. the same intolerance to being touched upon the right shoulder blade, whilst other parts of the body might be handled freely. Copious venesection, mercurial purges, with calomel, antimony, and opium, and saline diaphoretic medicine, cut short the attack; and in five days she became convalescent.

The second, a neighbour's servant (who had assisted in removing the bedclothes), was seized with faintness, headache, and vomiting; but nothing further occurred.

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## THE VETERINARIAN, DECEMBER 1, 1853.

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Ne quid falsi dicere audeat, ne quid veri non audeat.—CICERO.

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IN reference to the order issued from the Horse Guards to the different regiments of cavalry, in February last—a copy of which will be found in our Number for March following—a letter has recently been received from the same source, ordering a “report” to be made, by the commanding officers of the several regiments, “as to the advantages or inconveniences which have attended the introduction of the system of shoeing therein recommended.” On this point, our own opinion was pretty fully expressed at so early a date as the 1st of March, succeeding the order for the “introduction of the system,” received on the 4th of February preceding. Not that any or sufficient trial of the new mode of shoeing horses could have been made within the space of twenty-four days; but that, for our own part, it was so manifest that the introduced system was a compound of what we had already practised, and what we had long considered superseded by an improved mode of procedure, and for that reason had for some time been relinquished, that we felt no hesitation whatever in at once pronouncing on its comparative inferiority. We did this at the time of its announcement, as will be seen in the number of our Journal for March last; nor can we say, now, that the “system” has had six months’ trial, that we feel the slightest disposition to alter one word of our first opinion. We said (in our leader in the said March number):—

“That the regulations recently issued by the authorities at the Horse Guards will answer one, and that the principal end they appear to have in view, viz., the establishment of *uniformity* in a practice in which the different cavalry regiments differ one from another in almost as many respects as there are regiments, we entertain no doubt: but that they will carry this point without forfeiture of something beneficial to the service, or without the introduction of something detrimental to it, seems to us very problematical.”



The first four of the "instructions" contained in the order of the 4th February, before referred to, respect the *horse-shoe* alone; the fifth relates to the *nails* by which the shoe is fastened on; while the sixth instruction directs in what manner the foot is to be "prepared for the shoe." The "instructions" alluded to are these:

"1. The shoe is to be beveled off, so as to leave space and prevent pressure to the sole.

"2. It (the shoe) is not to be grooved or fullered, but simply punched, and the nails (to be) counter-sunk.

"3. Calking is to be applied to the hind shoe only, and is to be confined to the outside heel. The inside heel is to be thickened in proportion,

"4. The weight of the shoe is to be from twelve to fourteen ounces, according to the size of the horse."

In regard to the shoe, our language, already referred to, was as follows:

"The best horseshoe that can be used is the one which interferes the least with the action of the foot, while it affords the animal, as nearly as possible, *the same kind of tread the hoof itself gives him*. The tread or ground-surface of the foot is not flat, but *concave*, and for this reason a *concave shoe*, to imitate it, is (in our opinion, 'the best shoe,' being) the shoe we have for several years successfully and advantageously made use of. With this shoe the foot grasps or clutches the ground, making good its tread by indentations into that ground, and thus has a hold on it which prevents the danger of slipping. This is not the case with the ordinary (or 'instruction') shoe. Again, the arch of the sole, which partly supports the animal's weight, receives itself support from the arch of the (concave) shoe, since this everywhere lies upon or against it, and thus constitutes a very important following-up of nature; and one which is attended with this advantage (among others), that, since there is no, or next to no, interval between the sole and shoe, there is no interspace for such a force as suction to operate in dragging the shoe off from the foot."

In respect to the number of nails requisite to hold the shoe on, the instruction is—

"5. As a general principle, horses are to be shod with not

less than *six* nails in the fore, and *seven* in the hind shoe; nor is the shoe to be attached with fewer than *three* nails on either side."

Our answer to this is:—

"From the close fitting of this (the *concave*) shoe to the foot, *five* nails will hold it as fast on as six or seven will hold a shoe of an opposite description: whereby not merely are nails saved (which is trifling), but there is less imprisonment of the foot."

Next comes *Instruction No. 6*, the one directing "the preparing of the foot for the shoe," it runs thus:

"6. In preparing the foot for the shoe, as little (horn) as possible should be pared out, and *the operation should be confined to the removal of the exfoliating parts only.*"

If the operation of paring or preparing the hoof for the shoe is to be limited "to the removal of the exfoliating parts alone," then are we "instructed" to do that which our practice for years has taught us to do.

In answer to objections, we have observed:

"One objection urged against the concave shoe is that it is apt to lame the horse (that wears it). And, were it put upon a foot pared out or 'prepared' in the manner in which hoofs in general are for ordinary shoes, there can be no doubt whatever but that lameness would be an occasional consequence: since such paring or 'preparation' as the foot thereby obtains, renders the sole so 'tender' or sensitive to pressure, bruises, &c., that it really cannot bear the contact of the shoe; but, leave the sole *unpared*—remove *no* horn from it save what is *in the act of exfoliation*, and would, were it not removed, speedily fall off of itself, and then the concave shoe will be borne with impunity.

"The only part of the sole which admits of being taken away by the farrier is the *dead horn*, that which nature herself casts off, simply because it has served its purpose; what remains (at least what *ought* to remain) being *live* (elastic) sole, which by the covering of dead sole was preserved elastic to that degree that it answers every purpose of the action of

the foot ; and without calling at any time for necessity for *stopping*, which is another very important consideration. Thus the old sole (like a leathern sole, and better than it,) not only serves as a defence to the live sole against all contusions or cutting substances, such as stones, fragments of glass bottles, &c., but keeps the pores of the living horn closed up, and thus preserves the juices within them, and by that means maintains the required elasticity of the foot."

In the foregoing statements—which might be regarded as containing opinions prematurely offered, notwithstanding such opinions were the offsprings of comparative trials of the different practices of shoeing made in the course of many years before—there is nothing which we, since their publication, have felt desirous of altering. They are founded upon an experience too broad to be shaken by anything short of equivalent counter-experience, and that, we feel confident, will never, if conducted with ordinary fairness and skill, be brought effectually to bear against them.

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OUR journal for November contains an epistle from an old school-fellow, James Turner, "to his brother Veterinarians," reaching us at too late a period for notice last month, though deserving of some, which we are now going to make this. After a high eulogium on the two last deceased Professors at the Royal Veterinary College, Coleman and Sewell (than whom hardly any two public characters would bear comparison so little); and after reminding us that such distinguished men as Sir Astley Cooper, and even John Hunter took a lively interest in the welfare of the veterinary profession, and then declaring the "first-fruits of early veterinary science, admitting of public demonstration," to be "the successes of several army veterinary surgeons," "favorable notice from our law courts," and "general public satisfaction," James comes at length "to the burden of his story," which runs as follows:

"Considering the immense stocks and herds which must weekly assemble there (at the New Cattle Market at Copenhagen Fields), the majority (of which) of course, will fall under the butcher's knife, but for a certain per centage veterinary aid will be sought. Now, I beg leave to suggest to the Governors of the Royal Veterinary College, the policy of

securing an eligible plot of ground near the market, before it be too late, as a connecting link with their 'College,' to which patients might be ultimately conveyed."

The proposition of any new scheme, however salutary and promising it may appear, *in prospectu*, and especially when any amount of cost is required to carry it into operation, is naturally attended with inquiry, so far as the mind is able to carry it, into its probable *practical working*: and if that seem, on reflection, to be such as will reimburse its promoters, either in pocket or other equivalent measure, they hesitate not to patronise it; but, supposing that this appear problematical, or that the advantages of the parties, who are to be solicited to take an interest in it, seem to lean another way, then we should begin to feel apprehensive for the projected innovation. For James Turner's scheme to prove successful, we must, *à priori*, take it for granted, that dealers and owners of fat cattle, brought to market for sale, *will*, supposing any sickness or lameness befall them, *on or near the spot*, instead of driving or conveying them into the mart, and selling them *at once*, for what they will in their damaged condition fetch—we say, will feel inclined to take them to an infirmary, to be, at a risk, killed or cured, and certainly, if cured, to be woefully reduced in *embonpoint*. We repeat, *would* vendors of fat cattle act as James Turner supposes they would do? We should be afraid *they would not*. We all know, even at home, when any animal is fattening, or already fat, and anything happens or seems to ail him, how swift the cry is for the butcher, regardless altogether of veterinary aid to the fatted beast. "Oh! ill is he? Send for the butcher and dispose of him." Not a word about the *doctor*.

In making these few cursory comments on our friend's scheme, let him not think that we lack any of the desire, filling his own breast, that the requisites, in the promotion of veterinary science, in all its branches, should be, even under no light consideration, fully carried out; but, in the present case, so much apparently at variance with practice, we fear the best directed exertions would fall short of success.

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In addition to the statement made in our Council Report, we are enabled to inform our readers, that, at length, a house has been taken in Red Lion Square, which, before long, will be converted into THE ROYAL COLLEGE OF VETERINARY SURGEONS.



PROCEEDINGS OF THE COUNCIL OF THE ROYAL  
COLLEGE OF VETERINARY SURGEONS.

QUARTERLY MEETING OF COUNCIL, OCT. 25TH, 1853.

Present—Messrs. CHERRY, A. CHERRY, DICKENS, HENDERSON, LEPPER, SILVESTER, Professors SIMONDS and MORTON, and the SECRETARY.

H. LEPPER, Esq., Vice-President, in the Chair.

The minutes of the previous meeting were read and confirmed.

Letters were read from Messrs. Lucas, Pritchard, and Stockly, regretting their unavoidable detention from the meeting.

On the motion of *Mr. Gabriel*, seconded by *Mr. Henderson*, it was unanimously resolved that Professor Spooner be elected a trustee of the college, in the room of the late Professor Sewell.

*The Secretary* read a communication from the medical members of the Board of Examiners requesting an increase of fees, on the ground of having received information of the improved financial condition of the College.

*Professor Morton*, in moving a resolution on this subject, of which he had previously given notice, said it was extremely desirable to have men of talent and reputation on the Board of Examiners, and that they should be properly remunerated for their labours. With a pretty large income, and funds in hand, he thought the College could afford an increase of fees to the examiners; believing which, he would move—

“That the sum of five guineas be paid to each medical gentleman on the Board of Examiners for the period in attendance as examiner; that the travelling expenses of veterinary surgeons coming from the country to serve on the Board be defrayed; and also, if the funds of the College will allow it, that the fee of three guineas be paid for each attendance to the other members of the Board, except those who are members *ex-officio*.”

*Professor Simonds* seconded the motion.

*The Treasurer* thought the funds of the College, though ample, were not in a sufficiently flourishing condition to warrant the contemplated increase of expenditure, especially considering the liabilities which the Council had in view.

*Mr. Silvester, Mr. Dickens, and Mr. A. Cherry* thought the motion was too important to be summarily disposed of, and that time should be allowed for mature deliberation on the part of all the members of the Council.

*Mr. Dickens* would also remind the Council that this motion did not at all agree with one recently brought before them, which, if it had been carried, viz., the *decrease of the pupils' examination fee*, would have placed their finances in a far less enviable position.

*Professor Morton* said the College would be a gainer by the increase of the fee, if contemporaneously with it an alteration was made in the mode of conducting the examinations so that they might be held on two consecutive days, instead of four consecutive weeks, as at present.

*The Secretary* said the increase of fee was totally out of the question in the present limited income of the College, and the inevitable demand, arising from their taking a residence, on the balance in hand, except in connection with the change alluded to by Professor Morton—a change which was imperatively called for in order to remove the inconvenience very generally complained of, arising from the long intervals between the examinations, detaining some pupils in town a month or six weeks after others. He was not very fond of holding up the system of the Scotch school as a pattern card, but he must confess that the manner in which he had seen the most eminent medical and surgical professors of the Scotch metropolis give the greater part of an entire day or two without any fee whatever, the only return made them being an invitation to the annual dinner, had perfectly astonished him; and when, on the other hand, the medical gentlemen of the London branch were called on to meet for two or three hours of an evening, with an *ad libitum interregnum* for tea and coffee, and a concluding fee of two guineas on each occasion, the contrast to his mind of the latter complaining of their fee, and the former working altogether without one, was, he must confess, anything but a favorable one. He differed from Professor Morton as to the medical portion of the branch being entitled to a larger fee than the veterinary, for while the latter took an equal share in the labours of the evening, their care, anxiety, and interest were very much greater. As a member of the College of Surgeons himself, he felt he could make this remark without the slightest suspicion of his for a moment undervaluing the medical portion of the Board.

The motion was then postponed, at the request of Professor Morton, for further consideration.

The House Committee reported that, finding the premises in

Bloomsbury Square could not be obtained in consequence of a clause in the lease prohibiting them being sublet to any public body, they were at present in treaty for a house in Red Lion Square, at a rent of £70 a-year, and for which £200 would be required for fixtures and repairs.

*The Treasurer* laid his financial statement before the Council; the account showed, as the total amount of receipts, (including a balance in hand last year of £402 19s. 8d.,) £859 14s. 8d.; expenses, £234 9s. 8d.; balance in hand, £625 5s.

The following gentlemen, named by the Secretary, as the mover of the Permanent Finance Committee, were appointed on that Committee: Messrs. Braby, Ernes, Morton (Professor), Simonds (Professor), and Wilkinson.

*The Registrar's* report announced eleven deaths and forty changes of residence during the last quarter. The deaths reported, taking them according to the priority of admission, were—

W. Raine, Overington.	T. G. Habin, Chichester.
J. Siddall, Reading.	G. Salter, Eltham.
J. Peech, Pontefract.	J. Gooch, Swansthorpe.
J. Walton, Liverpool.	J. Lawrence, Bengal.
J. Child, Swaffham.	H. Alcock, Chester.
W. Cooke, Horncastle.	

*The Chairman* having named Messrs. Henderson, Dickens, and the Secretary as the Committee of Supervision, the proceedings terminated.

ALEX. HENDERSON,  
CHARLES DICKENS,  
E. N. GABRIEL.

## MISCELLANEA.

### SAGACITY OF A DOG.

MANY remarkable anecdotes are on record relative to the canine race, and as the following fact has not been in print, we deem it worthy of record. The late Mr. Satterthwaite, grandfather of Thomas Rogerson, Esq., of Liverpool, Ballyna-laphyn, Isle of Man, who died seven years ago, at Coulthover, near Hawkshead, soon after his marriage resided near Low Wood Inn, on the borders of Windermere,

Lake. He left home early one morning, accompanied by his shepherd's dog, to look after some sheep in the mountains, near Rydal, about four miles distant, and discovering two at the bottom of a precipice, between two rocks, he descended, with the view of extricating them; but when he got to the bottom he could neither assist them, nor get up himself again, and there he was confined until midnight. The faithful dog remained at the top of the precipice watching his master, but at nightfall he proceeded home, scratched the door, and was let in by his mistress, who expressed her surprise at the barking of the dog, and the non-arrival of her husband. She immediately called up the servant man, and told him she felt sure, from the strange conduct of the dog, that something must have happened to his master. She told the man to take a lanthorn and come ropes, and follow the dog, taking care to get assistance at Ambleside, which he did. No sooner had the man opened the door than the dog bounded out, leaped up at him, barked, and then ran forward, but quickly returned, leaped up again, and then ran forward again, as if to hasten the man's speed. The faithful dog led the man and his companions to the prison of his master, the ropes were instantly lowered, and the shepherd was providentially and quickly released, through the instrumentality of a dog, from his perilous situation. The sheep were hoisted up with the ropes.—*Liverpool Mercury*.

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#### SHEEP WORRIED BY A HORSE.

ON Saturday the 25th October, a young horse out at grass, belonging to Mr. W. Ashburner, Pennington, near Ulverstone, was discovered making a furious attack upon a sheep. It seized the sheep with its teeth, and tossed it a considerable height three or four times, then kneeling upon it, worried and tore it with the ferocity of a bull-dog. The sheep, a large fat one of 20lb per quarter, when with difficulty rescued from the savage attack of the horse, was not quite dead, but so mangled and torn that it was killed immediately, there being no hopes whatever of its recovery. About a fortnight before a sheep was discovered in the same field worried to death in a frightful manner, and three others very much mangled, and there is no doubt this was the work of the same horse.—*Carlisle Patriot*.



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